

BAKER BOTTS L.L.P.

1500 SAN JACINTO CENTER ABU DHABI
98 SAN JACINTO BLVD. **AUSTIN**
AUSTIN, TEXAS BEIJING
78701-4078 DALLAS
DUBAI
TEL +1 512.322.2500 HONG KONG
FAX +1 512.322.2501 HOUSTON
www.bakerbotts.com LONDON
MOSCOW
NEW YORK
PALO ALTO
RIYADH
WASHINGTON

March 18, 2010

VIA E-FILING AND HAND DELIVERY

Ms. LaDonna Castañuela
Chief Clerk
Texas Commission on Environmental Quality
12100 Park 35 Circle
Building F, 1st Floor, Room 1101
Austin, Texas 78753

Derek R. McDonald
TEL +1 512.322.2667
FAX +1 512.322.8342
derek.mcdonald@bakerbotts.com

Re: TCEQ Docket No. 2009-0032-AIR; SOAH Docket No. 582-09-2045;
*Application of IPA Coletto Creek, LLC for State Air Quality Permit 83778,
Prevention of Significant Deterioration Permit PSD-TX-1118 and Hazardous Air
Pollutant Permit HAP-18*

Dear Ms. Castañuela:

Enclosed for filing in the above-referenced and numbered cause is Applicant IPA Coletto Creek, LLC's Reply to Exceptions and Brief in Support of Proposal for Decision. The original and seven copies of the enclosed filing will be delivered to your office via hand delivery on Friday, March 19, 2010.

By my signature, I certify that a copy of this filing has been served on the parties to this matter as indicated below.

If you have any questions concerning this filing, please do not hesitate to contact me at the number above.

Sincerely,



Derek R. McDonald

Enclosures

cc: *(With Enclosure)*
The Honorable William G. Newchurch *(via E-Mail and Hand Delivery)*
The Honorable Richard R. Wilfong *(via E-Mail and Hand Delivery)*
Garrett Arthur *(via E-Mail and U.S. Mail)*
Booker Harrison and Ross Henderson *(via E-Mail and U.S. Mail)*
Christina Mann and Layla Mansuri *(via E-Mail and U.S. Mail)*
Wendi Hammond *(via E-Mail and U.S. Mail)*
Paul Tough and Tom Weber *(via E-Mail and U.S. Mail)*

**SOAH DOCKET NO. 582-09-2045
TCEQ DOCKET NO. 2009-0032-AIR**

APPLICATION OF	§	BEFORE THE TEXAS COMMISSION
IPA COLETO CREEK, LLC	§	
FOR STATE AIR QUALITY	§	
PERMIT 83778 AND PREVENTION	§	
OF SIGNIFICANT DETERIORATION	§	ON
AIR QUALITY PERMIT PSD-TX-1118	§	
AND FOR HAZARDOUS AIR	§	
POLLUTANT MAJOR SOURCE	§	
[FCAA § 112(g)] PERMIT HAP-18	§	ENVIRONMENTAL QUALITY

**APPLICANT IPA COLETO CREEK, LLC'S
REPLY TO EXCEPTIONS
AND
BRIEF IN SUPPORT OF PROPOSAL FOR DECISION**

TABLE OF CONTENTS

I.	Introduction.....	1
II.	The ALJs have properly applied the law governing the Application.	5
	A. The ALJs followed appropriate Commission precedent in identifying the applicable BACT requirements for the Application.	5
	1. The ALJs properly applied Texas law.	5
	2. IPA’s BACT demonstration satisfied the applicable state requirements and federal requirements.	6
	3. TCEQ’s BACT methodology results in emissions limits that are as stringent as EPA’s top-down approach.....	7
	4. EPA did not challenge the TCEQ’s BACT methodology or definition in its comments on the Application.....	7
	B. The ALJs correctly found that greenhouse gases and carbon dioxide are not subject to regulation under the TCAA or FCAA.	8
	1. CO ₂ is not a regulated pollutant under federal law.	8
	2. CO ₂ is not a regulated pollutant under state law.....	10
	a. The TCAA and TCEQ rules do not regulate GHGs.	10
	b. The Commission and Executive Director have consistently declined to regulate CO ₂	11
III.	The ALJs properly concluded that the Draft Permit will ensure compliance with the PM emission limits governing Coletto Creek Unit 2 without PM CEMS.....	12
	A. The Draft Permit establishes robust compliance demonstration requirements for PM.	13
	B. The ALJs’ decision not to require PM CEMS is supported by the record.	14
	C. EPA did not mandate PM CEMS for Coletto Creek Unit 2 in its comments.	15
IV.	The ALJs’ conclusions regarding IPA’s air dispersion modeling are supported by the record.	16
	A. The ALJs properly dismissed CCE’s arguments regarding coal delivery by truck.	17
	B. IPA modeled worst-case meteorological conditions.....	18
	C. IPA complied with Commission policy in excluding haul road emissions from short-term model runs.	19

D.	The ALJs correctly concluded that IPA used medium surface roughness in modeling ambient impacts around the Coletto Creek Station.	21
V.	The ALJs correctly concluded that the CC2 project will not cause or contribute to an exceedance of the NAAQS.	23
A.	IPA has demonstrated that the CC2 project will not cause or contribute to an exceedance of the PM _{2.5} NAAQS.	23
1.	EDF mischaracterizes the Trimble Order.	24
2.	IPA demonstrated compliance with PM _{2.5} in accordance with the Trimble Order.	25
B.	IPA has demonstrated that the CC2 project will not cause or contribute to an exceedance of the ozone NAAQS.	26
1.	VOC emissions from CC2 do not trigger ozone ambient impact analysis requirements.	26
2.	Ozone analyses demonstrate that impacts from CC2 will be insignificant.	28
VI.	The ALJs correctly concluded that the CC2 project will be protective of human health and the environment.	30
A.	IPA conducted voluntary on-property state effects review modeling for purposes of the hearing.	30
B.	The ALJs properly upheld the conclusion of Dr. Lee and Applicant’s witness Dr. Dydek that the predicted on-property Perdido Creek impacts will be protective of public health.	31
C.	Finding of Fact No. 132 is consistent with Commission guidance.	33
VII.	Conclusion.	34

Applicant IPA Coletto Creek, LLC (“IPA” or “Applicant”) files this Reply to Exceptions and Brief in Support of Proposal for Decision (“PFD”) in reply to the exceptions filed by protestants Sierra Club, Environmental Defense Fund, Inc. (“EDF”), Citizens for a Clean Environment (“CCE”) (collectively, the “Protestants”) and the Executive Director of the Texas Commission on Environmental Quality (“TCEQ” or the “Commission”). For the reasons set forth below, IPA respectfully urges the Commission to adopt Administrative Law Judges (“ALJs”) William Newchurch and Richard Wilfong’s Proposed Order and to approve IPA’s application and issue Permit Nos. 83778, PSD-TX-1118, and HAP-18 with the ALJs’ proposed revision and the conforming revision recommended by the Executive Director.

I. Introduction

This matter involves a preconstruction air quality permit application filed by IPA seeking authorization to construct a new pulverized coal-fired electric generating unit and related facilities at IPA’s existing Coletto Creek Power Station in Goliad County.

IPA submitted an initial application to the TCEQ seeking state air quality and federal Prevention of Significant Deterioration (“PSD”) permits on January 4, 2008, and supplemented that initial application to seek a Hazardous Air Pollutant (“HAP”) Major Source permit on June 28, 2008 (collectively, the “Application”), to construct the new Coletto Creek Unit 2 (“CC2”). The Executive Director declared the Application to be administratively complete on January 15, 2008, and declared the Application to be technically complete on November 25, 2008, when he rendered his preliminary decision to approve the Application. On November 25, 2008, the Executive Director also issued Draft Permit Nos. 83778, PSD-TX-1118, and HAP-18 (collectively, the “Draft Permit”). The Executive Director transmitted his Response to Public Comments and rendered his final decision to approve the Application and issue the Draft Permit on April 1, 2009. As described in the Preliminary Determination Summary, the Executive Director’s favorable review of the Application was generally based on his conclusion that the CC2 project facilities will employ best available control technology (“BACT”), that IPA’s air quality analysis demonstrated that the CC2 project emissions will comply with applicable air quality standards and be protective of the public health and property, and that the CC2 project facilities will employ case-by-case maximum achievable control technology (“MACT”).

IPA requested direct referral of the Application to the State Office of Administrative Hearings (“SOAH”), where it was docketed for contested case hearing before ALJs Newchurch and Wilfong under SOAH Docket No. 582-09-2045.

IPA filed its direct testimony and exhibits on August 14, 2009. Michael Fields, Director of Project Development for IPA, introduced the CC2 project and detailed how the Application complied with TCEQ rules and how TCEQ determined the Application to be administratively and technically complete. The prefiled testimony and exhibits of IPA witnesses Robert Fraser, QEP, Peter Belmonte, P.E., and Roosevelt Huggins, P.E., as well as their testimony during the October 2009 hearing on the merits, confirm the TCEQ Executive Director’s conclusion that the emissions limitations established for the CC2 project facilities in the Draft Permit meet existing regulatory requirements and satisfy BACT and case-by-case MACT. Similarly, the testimony of IPA witness Brian Stormwind confirms that the air dispersion modeling conducted for purposes of the Application is reliable and consistent with State and federal regulatory requirements, and demonstrates that the CC2 project will not cause or contribute to a violation of a National Ambient Air Quality Standard (“NAAQS”). The testimony of the witnesses for the Executive Director on these issues, Sean O’Brien and Dan Schultz, supports the Executive Director’s review of the Application and the approval of the Application on these issues.

IPA’s prefiled case also included the direct testimony of Dennis McNally regarding the photochemical modeling analysis that Mr. McNally performed for IPA to evaluate the potential ozone impacts of the CC2 project. While IPA’s Application satisfied the ozone evaluation screening techniques established by the Executive Director for air permits without the need for any other work, Mr. McNally’s photochemical modeling analysis further demonstrated that CC2 would not cause or contribute to an exceedance of the 8-hour ozone NAAQS at any regulatory monitoring site in Texas.

With respect to the state health effects review, no party offered evidence to contradict the determination of the Executive Director’s witness Dr. Jong-Song Lee or IPA’s witness Dr. Thomas Dydek that the predicted maximum off-property impacts of pollutants from the proposed CC2 project and existing Coletto Creek Power Station do not exceed levels that are protective of the health and property of the public. The only disputed issue with respect to the

state health effects review involved EDF's witnesses' assertion that the Application was not complete because it did not properly submit certain "on-property" modeling results to TCEQ. TCEQ guidance directs applicants to limit the state health effects review to off-property receptors. Despite that guidance, IPA modeled on-property impacts and properly submitted the on-property modeling results to TCEQ for review. As stated in the Executive Director's Exceptions to the PFD, Dr. Lee evaluated the on-property modeling results and concluded that the predicted concentrations are acceptable. The Executive Director supports the ALJs' ultimate conclusion that the CC2 project will not result in adverse health effects.

The PFD includes a thorough analysis of the evidence and the parties' arguments for the disputed issues in this matter. ALJs Newchurch and Wilfong found the testimony of IPA's expert witnesses regarding BACT and MACT emission rates credible and persuasive, though the ALJs proposed a slight reduction in the BACT emission rate for total PM/PM₁₀, based on the total PM/PM₁₀ BACT determination made in the Commission's December 11, 2009 Order in the NRG Texas Power LLC Limestone Unit 3 matter. IPA can commit to operate the state-of-the-art emissions controls planned for CC2 in a manner that will achieve the lower total PM/PM₁₀ emission limit proposed by the ALJs. Protestant Sierra Club's and EDF's exceptions attack the BACT methodology long employed by the Executive Director and upheld by the Commission time and time again. Moreover, Sierra Club and EDF ignore the evidence in the record demonstrating that the BACT determination for CC2 satisfies both state and federal definitions of BACT.

Sierra Club and EDF except to the ALJs' decision not to require a continuous emissions monitoring system ("CEMS") for particulate matter ("PM") for CC2, despite EPA's refusal to require CEMS as part of its recent amendments to the applicable federal New Source Performance Standard ("NSPS") Subpart Da and the recognized reliability concerns associated with PM CEMS. The initial and periodic stack testing, along with the Draft Permit's required continuous PM control device monitoring under the Compliance Assurance Monitoring ("CAM") plan, ongoing PM emissions calculations based on heat input and continuous opacity monitoring, will provide ample and continuous verification of IPA's compliance with the PM emission limits imposed on CC2.

ALJs Newchurch and Wilfong found IPA's emissions calculations and modeling reliable. Similar to BACT, Sierra Club's exceptions with respect to IPA's air dispersion modeling are properly characterized as attacks on the modeling methodologies developed and supported by the Executive Director's experienced air dispersion modeling team. Protestant EDF excepts to the ALJs' conclusion regarding the surface roughness determination for the Coleto Creek Station, despite overwhelming evidence to the contrary. As explained by witnesses for both IPA and the Executive Director during the hearing on the merits, the model inputs and modeling techniques challenged by the protestants are valid and reliable. IPA's audited and approved modeling provides conservative estimates of the CC2 project's air quality impacts, and demonstrates that the emissions from the CC2 project will not cause or contribute to a condition of air pollution and will be protective of public health and physical property. The ALJs shared the conclusion of Dr. Dydek and Dr. Lee that the CC2 project would be protective of the public health and physical property.

Likewise, CCE's exceptions to the ALJs' conclusions based on the ozone analyses performed in support of the Application must fail. The two independent ozone analyses IPA conducted in support of the Application represent reasonable methods to evaluate whether the project would result in a significant impact in ozone concentrations, which the evidence in the record show are trending lower in this region.

The ALJs correctly concluded that the record in this matter overwhelmingly demonstrates that the Application satisfies all statutory and regulatory requirements for issuance of the Draft Permit. IPA respectfully requests that the Commission issue an Order approving IPA's Application and directing the issuance of Air Quality Permit Nos. 83778, PSD-TX-1118 and HAP-18, with the ALJs' proposed revision and the conforming revision recommended by the Executive Director, that will authorize construction of the CC2 project.

IPA's Reply to Exceptions and Brief in Support of Proposal for Decision will address the issues and the other parties' exceptions in the order that ALJs Newchurch and Wilfong address the issues in the PFD. IPA also incorporates by reference its Closing Brief and Brief in Reply to Closing Arguments in the event that the Commissioners are interested in more details of the overwhelming evidence in the record supporting the Application.

II. The ALJs have properly applied the law governing the Application.

The ALJs have properly characterized the role of federal law in this proceeding, and have properly applied the legal requirements governing the Application.

A. The ALJs followed appropriate Commission precedent in identifying the applicable BACT requirements for the Application.

The ALJs upheld the BACT determinations made by the Executive Director, with one exception: as noted above, the ALJs proposed to lower the total PM/PM₁₀ emission limit from 0.032 lb/MMBtu to 0.025 lb/MMBtu, based on the BACT emission rate included in the PSD permit that the Commission issued for Limestone Unit 3, another coal-fired electric generating unit, immediately prior to the close of the record in this matter. PFD at 30. Applicant is willing to accept this amended limit. While the ALJs recommended that change to the total PM/PM₁₀ BACT emission limit, they found that past Commission determinations resolve any concerns raised by the protestants about the Executive Director's BACT review of the Application, and concluded that the BACT analysis for CC2 satisfies applicable legal requirements. PFD at 37.

The record in this matter overwhelmingly supports the Executive Director's BACT determination for CC2, as modified by the ALJs. The Protestants failed to identify a demonstrated emission limit lower than those proposed by IPA in this matter. Sierra Club's control technology expert witness Dr. Ron Sahu argued for lower BACT emission rates based on unreliable data that was properly discounted by the ALJs. Lacking persuasive evidence that lower BACT emission limits are required for CC2, Protestants Sierra Club and EDF now attack TCEQ's methodology for conducting a BACT review.

1. The ALJs properly applied Texas law.

Protestants Sierra Club and EDF argue that the TCEQ is required to apply the federal definition of BACT found in the Texas SIP, and that the Executive Director must adhere to EPA policies and methodologies in conducting BACT reviews. The ALJs, however, correctly state that TCEQ must follow its own rules for purposes of determining whether the Application shall be granted. TEXAS WATER CODE § 5.103(c); PFD at 9. As a result, the evaluation of IPA's compliance with applicable legal requirements is based on TCEQ definitions and TCEQ's three-tier methodology for conducting a BACT review. The ALJs are also correct in stating that

SOAH is not a reviewing court, but rather applies the rules of the TCEQ and the TCEQ's interpretations of those rules in preparing a PFD. PFD at 9. Finally, the ALJs correctly note that there is a difference between a legal requirement and a methodology not found in statute or rule. EPA policies, such as the federal "top-down" methodology for identifying BACT, or specific precedent of EPA's Environmental Appeals Board ("EAB"), fall within this category. EAB has confirmed this distinction, holding that EPA's top-down methodology — still in draft form — does not have binding legal effect, even in delegated areas. *See, e.g., In re Prairie State Generating Co.*, PSD Appeal No. 05-05, at 26 (EAB 2006) (Order Denying Review).

2. IPA's BACT demonstration satisfied the applicable state requirements and federal requirements.

Protestants Sierra Club and EDF except to the PFD, arguing that the ALJs have failed to employ the federal BACT definition and that the TCEQ is obligated to adhere to EPA's "top-down" methodology in establishing BACT. While the ALJs evaluated IPA's compliance with Texas law and Texas rules, the record in this matter demonstrates that IPA's BACT analysis considered both the TCEQ and EPA definitions of BACT, and that IPA followed both the TCEQ's three-tier methodology and the EPA's top-down methodology. This was firmly established in Mr. Fraser's testimony detailing the BACT analysis performed for CC2, and in the Application itself. Applicant's Ex. 21 at 17:6-20:16 (R. Fraser); Applicant's Ex. 3 at IPA 0000052-81 (Application). As Mr. Fraser testified, "in the case of the Application for the CC2 project, [EPA] top-down BACT guidance was considered in addition to the TCEQ tiered BACT evaluation approach." Applicant's Ex. 21 at 19:26-29 (R. Fraser) (emphasis added).

Despite the Protestant's generic attacks on TCEQ's definition of BACT, substantial evidence demonstrates that TCEQ's tiered approach to BACT is equivalent to the federal BACT definition. As the Executive Director stated in his Response to Comments on the Application, TCEQ's three-tiered BACT approach captures the two fundamental concepts in the Federal Clean Air Act ("FCAA") definition of BACT: first, the most stringent available control technology (and associated emission limitation) is evaluated; and second, if BACT is proposed that is less than the most stringent available, there must be a case-specific demonstration why the most stringent control is not selected. Executive Director's Ex. ED-11 at 19 (Executive Director's Response to Comments). By requiring the applicant to evaluate all control technologies in the EPA RACT/BACT/LAER Clearinghouse ("RBLC"), EPA's National Coal

Fired Utility Projects Spreadsheet, recently issued permits, and draft permits and applications for similar coal power projects, the TCEQ's BACT requirements met the standards of the federal BACT definition, regardless of whether that exact definition is part of the TCEQ's preconstruction permitting rules in Chapter 116.

3. TCEQ's BACT methodology results in emissions limits that are as stringent as EPA's top-down approach.

Protestant EDF claims that a record demonstrating that IPA has followed federal guidance "does not exist." This is simply untrue. Moreover, as IPA's witness Mr. Fraser testified, use of the federal definition of BACT (rather than the Texas definition) would have no impact on the BACT emission limits in the Application, and would result in no different outcome. He testified that the CC2 BACT evaluation "considered the top levels of control approved by TCEQ for recent similar sources, potential advancements in control technology, as well as a top-down analysis for each contaminant." Applicant's Ex. 21 at 19:30-20:12 (R. Fraser). Similarly, TCEQ expert Sean O'Brien testified that even if TCEQ's BACT methodology is different than EPA's approach, they "both get to the same point." Executive Director's Ex. ED-1 at 11:27-31 (S. O'Brien). Sierra Club's own witness, Dr. Ron Sahu, testified that "[i]t is my opinion that either the Top-Down Methodology or Texas's Three Tier Methodology, applied correctly, should produce the same BACT outcome." EDF Ex. 1 at 72:19-21 (R. Sahu). Thus, whether the federal or state approach is used, IPA's emissions limitations represent BACT.

The Protestants have not specifically alleged, let alone established, how a change to the TCEQ's current BACT definition changes the BACT analysis for CC2. In fact, Sierra Club's general critiques of TCEQ's BACT methodology are not consistent with Dr. Sahu's own statements regarding the equivalency of the TCEQ and EPA approaches. The language used in Texas' BACT definitions, and EPA's approval or disapproval of that definition, would not affect the ultimate outcome of IPA's BACT analysis.

4. EPA did not challenge the TCEQ's BACT methodology or definition in its comments on the Application

Protestant Sierra Club included as an attachment to its exceptions a March 1, 2010 letter that EPA submitted to TCEQ, commenting on proposed changes to the TCEQ

preconstruction permitting rules relating to the definition of BACT. The record closed in this matter on December 11, 2009. The March 1, 2010 EPA letter is outside the record in this matter and not relevant for the Commission's determination of whether IPA satisfied the applicable requirement to employ BACT. IPA objects to Sierra Club's introduction of a document prepared after the record closed in this matter and moves to strike the attachment to Sierra Club's exceptions. Moreover, a comment letter making general statements about the TCEQ's BACT methodology is wholly unpersuasive when the record in this matter includes a comment letter that EPA filed on this specific permit in which EPA did not object to the BACT definition or methodology that TCEQ employed in its review of the Application. Applicant's Ex. 38 (EPA Comments on Application and Draft Permit (Dec. 30, 2008)).

The Protestants' exceptions regarding the applicable BACT requirements are inconsistent with Commission precedent and altogether unpersuasive given the evidence in the record demonstrating that the BACT determination for CC2 satisfies both the state and federal definitions of BACT. The Protestants' exceptions on this topic should be overruled.

B. The ALJs correctly found that greenhouse gases and carbon dioxide are not subject to regulation under the TCAA or FCAA.

The Judges properly excluded evidence regarding carbon dioxide ("CO₂") and greenhouse gases ("GHGs") in this matter and correctly found that CO₂ is not subject to regulation under the Texas Clean Air Act ("TCAA") or the FCAA. PFD at 20.¹

1. CO₂ is not a regulated pollutant under federal law.

Emissions of CO₂ and other GHGs remain beyond the scope of PSD review for air quality permits, such as the permit at issue here, because they are not "subject to regulation" under the FCAA. Contrary to EDF's claim, in *Massachusetts v. EPA*, the U.S. Supreme Court did not declare CO₂ a regulated pollutant. 549 U.S. 497 (2007). Rather, the Court merely held that certain GHGs, including CO₂, are "air pollutants" under the FCAA and that EPA therefore has the authority to regulate GHGs. Importantly, however, the Court stopped short of ordering EPA to begin regulating GHGs. Instead, the opinion directed EPA to determine whether or not

¹ IPA incorporates herein its arguments regarding GHGs from Applicant IPA Coletto Creek, LLC's Objections to Prefiled Testimony and Exhibits and its arguments regarding GHGs from Applicant IPA Coletto Creek, LLC's Brief in Reply to Closing Arguments, and the ALJ's Order No. 8 excluding testimony regarding GHGs from the record.

GHGs endanger public health or welfare or to offer “some reasonable explanation as to why [EPA] cannot or will not exercise its discretion to determine whether they do.” *Id.* at 501. Accordingly, the Supreme Court did not address whether GHGs are pollutants subject to regulation under the FCAA. In fact, the opinion suggests that GHGs are in fact not “subject to regulation” under the FCAA by observing that GHGs may remain unregulated depending on EPA’s future actions.

EPA has repeatedly confirmed that GHGs are not subject to regulation. In the July 30, 2008 advance notice of proposed rulemaking (“ANPR”) on GHG regulation, EPA stated that “CO₂ is not a regulated pollutant under the [FCAA]” and discussed GHGs in terms of potential future regulations. 73 Fed. Reg. 44400, 44397-44400 (July 30, 2008) (Regulating Greenhouse Gas Emissions Under the Clean Air Act). In November 2008, EPA’s Environmental Appeals Board (“EAB”) ruled that EPA had discretion to determine what is considered a pollutant “subject to regulation” under the FCAA, and that EPA had discretion not to include CO₂ limits in PSD permits. *In the Matter of Deseret Power Electric Coop.*, EAB App. No. PSD 07-03 (EAB 2008) (“*In re Deseret*”).

In response to the EAB’s *In re Deseret* decision, former EPA Administrator Johnson issued a memorandum in December 2008 affirming that CO₂ is not currently “subject to regulation” under the FCAA and that EPA does not regulate CO₂ in the PSD permitting program. See Memorandum from Stephen L. Johnson, Administrator, EPA to Regional Administrators at 6-7 (Dec. 18, 2008) (“Johnson Memorandum”). EPA is currently reconsidering the Johnson Memorandum, but has expressed a preference to adopt the same interpretation of “subject to regulation.” 74 Fed. Reg. 51,535 (Oct. 7, 2009) (*Reconsideration of Interpretation of Regulations That Determine Pollutants Covered by the Federal PSD Permit Program*). Furthermore, EPA declined Sierra Club’s request to stay the Johnson Memorandum during the reconsideration, hence it remains the EPA’s interpretation. *Id.*

On October 27, 2009, EPA confirmed that GHGs are not subject to regulation under the FCAA, yet again, in the *Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule*. 74 Fed. Reg. 55,291 (Oct. 27, 2009) (the “PSD Tailoring Rule”). According to the Agency, “[c]urrently, EPA does not consider GHG emissions to be ‘regulated NSR pollutants’ under the PSD program because GHG emissions have not, thus far,

been subject to regulation requiring control under the CAA.” *Id.* at 55,299. Finally, as recently as December 7, 2009, EPA again confirmed that GHGs are not subject to regulation under the FCAA. In the pre-publication version of EPA’s final endangerment finding, EPA confirmed that “it is EPA’s current position that these Final Findings do not make well-mixed greenhouse gases “subject to regulation” for purposes of the CAA’s Prevention of Significant Deterioration (PSD) and title V programs.” *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, Pre-Publication Version at 115, n.17 (Dec. 7, 2009) (“Endangerment Findings”).² It remains current EPA policy that CO₂ is not regulated under the PSD program.

2. CO₂ is not a regulated pollutant under state law.

The TCEQ does not and never has regulated GHGs under the TCAA. As the ALJs explain in the PFD, the TCEQ has no rules regulating GHGs and has consistently declined the *ad hoc* regulation of CO₂ through the state preconstruction or PSD permitting programs. PFD at 20. Sierra Club takes issue with both of the ALJs’ reasons for excluding evidence concerning GHGs from the hearing. While Protestant EDF recognizes that TCEQ does not regulate CO₂ emissions and other greenhouse gases, EDF nevertheless insists that the TCAA requires an analysis of IPA’s GHG emissions. However, Protestants’ empty arguments ignore the plain language of the TCAA and TCEQ regulations and the consistent policy of the Commission.

a. The TCAA and TCEQ rules do not regulate GHGs.

The Texas Legislature has granted TCEQ the authority to regulate CO₂. The TCAA provides: “[c]onsistent with applicable federal law, the commission by rule may control air contaminants as necessary to protect against adverse effects related to . . . climatic changes, including global warming.” TEX. HEALTH & SAFETY CODE § 382.0205(3). The TCEQ has not enacted any such rule. In fact, current TCEQ regulations expressly exclude CO₂, along with water, nitrogen, methane, ethane, noble gases, hydrogen, and oxygen from the definition of “unauthorized emissions.” 30 Tex. Admin. Code (“TAC”) § 101.1(107). This means that

² EPA’s final Endangerment Finding is currently subject to challenge in the U.S. Court of Appeals for the District of Columbia Circuit. Numerous states, including the State of Texas on behalf of the TCEQ and a number of other agencies, Alabama, and Virginia, in addition to a broad swath of businesses, trade associations, and industry filed petitions for review.

authorization is not required to emit CO₂. Sierra Club turns the definition of “unauthorized emissions” on its head by asserting that it supports the conclusion that CO₂ is an air contaminant in Texas law. However, if Sierra Club’s argument is taken literally, it would also follow that water and oxygen are likewise “air contaminants” under Texas law.

Sierra Club also argues that Texas Health and Safety Code § 382.024 requires the Commission to consider GHG emissions. However, this rule does not apply to new permitting matters. In *Galveston Bay Conservation and Preservation Association v. Texas Air Control Board*, the Austin Court of Appeals held that former Art. 4477-5 § 3.13 (the TCAA predecessor to § 382.024 requiring consideration of the social and economic value of the source) “applies to existing sources for air contaminants rather than to future sources seeking construction permits.” 586 S.W.2d 634, 640 (Tex. Civ. App.—Austin 1979, writ refused n.r.e.). More recently, in the Sandy Creek contested case hearing, the ALJs evaluated whether a new permit must consider the factors set forth in § 382.024 and determined that, based on the Austin Court of Appeals interpretation of the equivalent TCAA provision, this section is not applicable to applications requesting a new permit. Proposal for Decision, Application of Sandy Creek Energy Associates, L.P., for Air Quality Flexible Permit No. 70861, PSD Permit No. PSD-TX-1039, SOAH Docket No. 582-05-5612, TCEQ Docket No. 2005-0781-AIR at 23 (Mar. 8, 2006).

Because TCEQ regulations and the TCAA do not limit GHG emissions and in fact expressly exclude CO₂, there is no requirement under Texas law that the Commission consider CO₂ emissions as part of the review of air quality permit applications in Texas.

b. The Commission and Executive Director have consistently declined to regulate CO₂.

Contrary to Sierra Club’s claim that the PFD “grossly conflates” Commission actions with Executive Director actions, TCEQ has established a clear pattern of declining to regulate GHGs under TCAA permitting.

TCEQ has consistently declined to consider GHGs in prior permitting decisions. As recently as December 11, 2009, in the Final Order granting NRG Texas Power LLC’s application for air permits to construct Limestone Unit 3, another coal-fired electric generating unit, the Commission recognized that “[c]arbon dioxide is not currently subject to regulation under the Texas Clean Air Act and has not previously been subject to regulation.” Tex. Comm’n

on Env't Quality, Application of NRG Texas Power LLC, for State Air Quality Permit No. 79188, PSD Permit No. PSD-TX-1072, and HAP Permit No. HAP-14; TCEQ Docket Nos. 2007-1820-AIR and 2008-1210-AIR; SOAH Docket Nos. 582-08-0861 and 582-08-4013, Finding No. 225 & Conclusion No. 24 (Dec. 11, 2009) ("Limestone Unit 3 Final Order"). In issuing its Order, the Commission concluded that NRG was not required to evaluate any impacts of substances that are unregulated under the FCAA or TCAA, such as CO₂. *Id.* at Conclusion No. 25.

Prior to the Commission's decision not to consider GHG emission in the Limestone Unit 3 Final Order, the Commission had already established a clear pattern of declining to regulate GHG emissions in air permitting matters. In August 2000, the Commission responded to a petition for rulemaking by declining to regulate CO₂ as a GHG. Executive Director's Response to Public Comment, TCEQ Permit Application No. 70492 & PSD-TX-1037 at 22 - 23 (filed May 20, 2005). In issuing an air permit for the Sandy Creek Energy Station, the TCEQ acknowledged that CO₂ would be emitted but determined that it is unregulated, stating that "[t]he proposed Station will emit some substances that are not regulated under the Texas or Federal Clean Air acts, such as water vapor, nitrogen, methane, ethane and carbon dioxide." Applicant's Ex. No. 26 at 36 (Sandy Creek Final Order). Protestants appealed TCEQ's final order granting the permit to District Court, which affirmed; the Protestants then appealed to the Texas Court of Appeals for the Seventh District at Amarillo. *Blue Skies Alliance v. Tex. Comm'n on Env't Quality*, 283 S.W.3d 525, 528 (Tex. App.—Amarillo Jan. 29, 2009, no pet.). The Court of Appeals affirmed the judgment below. *Id.*

The exceptions filed by Sierra Club and EDF relating to GHGs should be overruled.

III. The ALJs properly concluded that the Draft Permit will ensure compliance with the PM emission limits governing Coletto Creek Unit 2 without PM CEMS.

The evidentiary record in this matter fully supports the ALJs' conclusion that IPA should not be required to install a CEMS for PM. The Draft Permit establishes a robust combination of stack testing, emissions calculation and control device monitoring designed to ensure compliance with the permit's limits for PM. That fact, along with the additional bases for

not mandating use of a PM CEMS cited in the PFD, supports the ALJs decision to endorse the PM compliance demonstration methods set forth in the Draft Permit.

A. The Draft Permit establishes robust compliance demonstration requirements for PM.

The Draft Permit requires initial and ongoing annual stack testing to evaluate compliance with the applicable filterable PM and total PM/PM₁₀ emissions limits. Executive Director's Ex. ED-12 at SC 21 & 29.A (Draft Permit). Stack testing is expected to demonstrate compliance with permit limits, including a compliance margin. Applicant's Ex. 84 at 30:19-20 (R. Fraser Rebuttal). Specifically, compliance with the Draft Permit's total PM/PM₁₀ limit will be measured using Appendix M, Methods 201A and 202, or Appendix A, Reference Method 5, modified with a controlled condensate method, a modified Method 202 approved or specified by EPA, or other Method explicitly approved by TCEQ. Executive Director's Ex. ED-12 at SC 22 (Draft Permit); Applicant's Ex. 83 at 17:3-12 (R. Huggins Rebuttal). The Draft Permit also requires, for a demonstration of ongoing compliance with the filterable PM and total PM/PM₁₀ emissions limits, that IPA calculate rolling 12-month annual emissions using emission factors from the stack testing and monthly total heat input to CC2. Executive Director's Ex. ED-12 at SC 29.D (Draft Permit).

The Draft Permit also establishes a detailed Compliance Assurance Monitoring ("CAM") plan for filterable and total PM that will demonstrate continuous compliance with PM emission limits between annual stack tests. Executive Director's Ex. ED-12 at SC 29.E (Draft Permit); Applicant's Ex. 3 at IPA000088 - IPA000090 (Application). The fabric filters proposed for CC2 are a passive control device, meaning they will very effectively collect filterable PM unless compromised due to bag failure or leakage — conditions that will be continuously monitored under the CAM plan with bag leak detectors required by Permit Special Condition 29.E. Executive Director's Ex. ED-12 at SC 29.E (Draft Permit); Applicant's Ex. 3 at IPA000088 - IPA000090 (Application); Applicant's Ex. 84 at 41:22-25 (R. Fraser Rebuttal). Continuous bag leak detectors can provide a diagnostic indication of which compartment has developed a leak, and in that regard are superior to PM CEMS, in that PM CEMS only measure the filterable PM in the stack from all operating compartments. Applicant's Ex. 84 at 41:25-28 (R. Fraser Rebuttal). A PM CEMS, therefore, would be less sensitive to detection of a gas bypass in an individual compartment, and would provide IPA with no indication of how to

remedy the situation prior to exceedance of the MAERT limitation. Applicant's Ex. 84 at 41:28-31 (R. Fraser Rebuttal). As confirmed by Executive Director's expert witness Sean O'Brien —and the ALJs — “the bag leak detection combined with the annual stack test for particulate matter satisfies the requirement for continuous monitoring.” 5 Tr. 1113:12-15 (S. O'Brien); PFD at 50.³

B. The ALJs' decision not to require PM CEMS is supported by the record.

Sierra Club challenges the bases for the ALJs' determination that the Draft Permit requires continuous demonstration of compliance without a PM CEMS. Sierra Club's Exceptions at 12. However, an examination of the record upholds all of the reasons cited by the ALJs. PFD at 50.

As noted by the ALJs, there is no federal regulatory requirement in the PSD regulations or NSPS, or in any Texas rule, that requires the installation of PM CEMS on CC2. Applicant's Ex. 84 at 41:13-15 (R. Fraser). 5 Tr. 1113:5-8 (S. O'Brien). Even Sierra Club's expert Dr. Armendariz agreed he could not “identify any law or rule that requires IPA to install any CEMS for any emissions at this boiler.” 4 Tr. 830:5-8 (A. Armendariz). Additionally, PM CEMS have not been typically required in PSD permits for similar sources. The TCEQ has not required PM CEMS for any similar project. Applicant's Ex. 3 at IPA0000368 (Letter from Robert Fraser to Sean O'Brien, Feb. 3, 2009). To date, there are fewer than a dozen systems operating on coal plants, all of which were required via consent order or similar agreement. Applicant's Ex. 3 at IPA0000368. Dr. Armendariz himself admitted that “the only [operating coal-fired power plants] I'm aware of have CEMS as a result of other legal or regulatory action. I don't know of any as a result of a PSD matter.” 4 Tr. 832:5-7 (A. Armendariz).

The record also supports the “functional shortcomings” cited by the ALJs in rejecting PM CEMS. PFD at 50. PM CEMS measure only filterable particulate (and are unable to measure condensable PM₁₀), and do not differentiate the size fraction of filterable particulate. Applicant's Ex. 3 at IPA0000368; Applicant's Ex. 84 at 41:18-22 (R. Fraser Rebuttal). Additionally, there is no established relative accuracy test audit (“RATA”) track record to ensure that the data that is being measured is compliance-quality data. Applicant's Ex. 83 at 13:3-9

³ The Draft Permit also requires IPA to employ a continuous opacity monitoring system (“COMS”) to monitor opacity from CC2. Executive Director's Ex. ED-12 at SC 24 (Draft Permit).

(R. Huggins Rebuttal). Dr. Armendariz acknowledged the problems with PM CEMS during the hearing:

Q. Can you describe the reliability concerns that you know of with regard to the particulate matter CEMS?

A. Uh-huh. Particulate matter CEMS can be subject to interference from gases. There can also be corrosion issues if the gases are particularly high in acid gases. Those are the—so there are—yeah, there are issues with PM CEMS regarding corrosion. There are some issues regarding artifacts. Those are the ones I’m most primarily aware of.

4 Tr. 83315-24 (A. Armendariz). Other state agencies have declined to require PM CEMS due to these reliability problems. For example, North Carolina declined to require PM CEMS on the Cliffside plant because “PM CEMS technology is not sufficiently mature to rely on them for compliance purposes.” Applicant’s Cross Ex. 9 (Letter from North Carolina Department of Environment and Natural Resources to EPA, Jan. 28, 2008). From a practical standpoint, there are many problems with PM CEMS that make IPA’ chosen compliance demonstration technology preferable. The Executive Director’s decision not to require PM CEMS, and the ALJs’ endorsement of that decision, is well-grounded.

Finally, Sierra Club argues that PM CEMS “must be imposed after a proper BACT review is conducted.” Sierra Club’s Exceptions at 13. Sierra Club’s argument reflects a fundamental misunderstanding of the BACT review. BACT is an *emission limitation* based on the use of best available control technology. Applicant’s Ex. 21 at 26:27 (R. Fraser). Elsewhere in its exceptions, Sierra Club quotes the definition of BACT at 40 CFR § 52.21(b)(12), which defines BACT as an emissions limitation. Sierra Club’s Exceptions at 10 (quoting 40 CFR § 52.21(b)(12)). BACT is not a compliance demonstration; the BACT review establishes an emission limit, and the permitting authority establishes monitoring and compliance demonstration requirements independently. A BACT review is not conducted in order to identify appropriate monitoring, and the BACT review does not mandate the use of a particular monitoring requirement.

C. EPA did not mandate PM CEMS for Coletto Creek Unit 2 in its comments.

EDF cites EPA’s comments on the Draft Permit, in which EPA states that TCEQ should consider the use of PM CEMS for CC2. EDF’s Exceptions at 7. As stated in the

Executive Director's Response to Comments, the Executive Director did just that: it considered whether to require a CEMS for PM. The Executive Director ultimately concluded that PM CEMS are not required to demonstrate continuous compliance with the PM emission limits applicable to CC2, and that IPA will appropriately monitor PM on a continuous basis with the compliance demonstration methods established in the Draft Permit. Executive Director's Ex. ED-11 at 15 (Response to Comments). EPA did not mandate PM CEMS in its comments on CC2. EPA identified PM CEMS as one potential option for PM compliance demonstration, and the Executive Director duly considered PM CEMS during its technical review of the Application.

Lacking any technical or legal basis to support its arguments for PM CEMS, EDF argues that, "if it is the intent of the public participation process to issue the most environmentally protective permit, then PM CEMS should be included." EDF's Exceptions at 8. Public participation ensures that the public has a role in the permitting process. It ensures that members of the public can comment on, and in the contested case hearing context, present evidence and legal argument on, whether the application satisfies the applicable statutory and regulatory requirements. Public participation does not, however, change the legal requirements for issuance of a permit. Those requirements are established in the FCAA, the TCAA, and implementing regulations. Nowhere in those authorities is a requirement that the TCEQ comply with the vague standard of "most environmentally protective permit" in issuing preconstruction permits. EDF's exceptions should be overruled and the Commission should uphold the ALJs' and Executive Director's decision not to require PM CEMS for CC2.

IV. The ALJs' conclusions regarding IPA's air dispersion modeling are supported by the record.

The record in this matter strongly supports the ALJs' determination that the modeling presented by IPA was conducted in accordance with TCEQ and EPA policy and guidance and represents a conservative prediction of the CC2 project's air quality impacts. That modeling, which was audited by the Executive Director, served as the basis for the ALJs' conclusion that the CC2 project will be protective of the public's health and physical property.

A. The ALJs properly dismissed CCE's arguments regarding coal delivery by truck.

The ALJs found that IPA had no obligation to evaluate the potential emissions impacts of coal delivery by truck, stating that they “agree with IPA that it is beyond reason to assume that IPA would be able to deliver coal to the Facility by trucks or a combination of ships and trucks.” PFD at 65. For that reason, and based on the clear evidence in the record that IPA has no intent to fire CC2 with coal delivered by truck, the ALJs found that there is no reason to prohibit delivery of coal by truck in the permit. PFD at 66. CCE is not persuaded, estimating truck counts and time in a mathematical exercise to support its argument that the application is incomplete because truck delivery was not subject to BACT and air dispersion modeling review. CCE's Exceptions at 14.

CCE ignores the clear testimony in the record when it argues for an evaluation of the emissions impacts associated with coal delivery by truck. IPA's witness Mr. Fields testified that, on one past occasion due to a rail interruption and the inability of Union Pacific to deliver coal to the Coletto Creek Station, coal was trucked to the Coletto Creek Station from Corpus Christi. 1 Tr. 109:23-110:21 (M. Fields). As Mr. Fields explained, however, supplying the 9,000 tons per day of coal combusted by existing Unit 1 alone would require 360 truck deliveries per day. 6 Tr. 1443:4-7 (M. Fields). IPA did not calculate emissions associated with the truck delivery of coal, or model predicted impacts of the truck delivery of coal to the Coletto Creek Station, because such a scenario is “beyond reason.” 6 Tr. 1443:12 (M. Fields). IPA did not include an evaluation of the emissions impacts of coal delivery for CC2 by truck because it does not seek to authorize additional truck traffic for the delivery of coal to be fired in CC2 as part of the Application.

The ALJs sensibly declined CCE's suggestion to include a permit provision prohibiting the delivery of coal to the Coletto Creek Station by truck, recognizing that IPA's plan to use rail to deliver CC2's fuel “does not mean that one or two trucks of coal might not need to be delivered at some time for some unanticipated reason.” PFD at 66. CC2's insistence on permit language prohibiting any activity that has not been subject to BACT and dispersion modeling, no matter how unlikely, is no way to write an air quality permit. The ALJs' rejection of CCE's arguments on this point is sound, and CCE's exceptions should be overruled.

B. IPA modeled worst-case meteorological conditions.

The meteorological data to be used as an input for air dispersion modeling was a topic of extensive expert witness testimony, as Sierra Club’s expert witness Camille Sears challenged IPA’s expert witness Brian Stormwind’s use of preprocessed meteorological data files that were supplied by TCEQ. IPA used the meteorological data set recommended by the TCEQ for conducting air dispersion modeling in Goliad County. Applicant’s Ex. 28 at 20: 11-23 (B. Stormwind). The meteorological data files supplied by the TCEQ were based on National Weather Service (“NWS”) “observer” data that was collected by a trained NWS observer. Applicant’s Ex. 65 at 7: 26-29 (B. Stormwind). Ms. Sears advocates the use of data collected more recently using the Automated Surface Observing Station (“ASOS”) system. After weighing the evidence and hearing the testimony of the parties’ expert witnesses, the ALJs found that the meteorological data that IPA used in its air dispersion modeling “complied with both TCEQ’s and EPA’s guidelines and was suitable for modeling.” PFD at 81.

Sierra Club excepts to this conclusion, and points to the higher predicted impacts generated by Ms. Sears’s model runs to support its argument that “[t]he very fact that a meteorological data set shows increased impacts, demonstrates that worst case conditions were not modeled.” Sierra Club’s Exceptions at 14. This is simply not true. Sierra Club conflates worst-case results with worst-case conditions.

In setting up the model, IPA made a series of assumptions that result in the model generating a conservative prediction of the maximum off-property impacts. Significant elements of conservatism include:

- conservative emissions calculations for Coletto Creek 2 project sources -- for example, the off-property modeling assumes that emissions from the coal pile, which are fugitive emissions directly affected by wind speed, will be the same during low wind speeds as during moderate wind speeds;
- the model assumes that all sources are operating at their maximum allowable emission rate at the same time, a situation that will not occur in practice; and
- the model assumes that this worst-case emissions scenario (*i.e.*, all sources emitting simultaneously at maximum allowable emission rates) occurs for every hour in the five-year meteorological data set, ensuring that worst-case emissions occur at the worst-case meteorological conditions.

Applicant's Ex. 28 at 25: 30-35; 47:22 - 48:7 (B. Stormwind). The modeling employed by IPA ensured that worst-case conditions were modeled by assuming maximum emission rates across the site for five full years of meteorological data. The extensive sample size (five years multiplied by 8760 hours per year) and the model's prediction of concentrations for every hour over that five-year data set ensures that the model predicts impacts during the meteorological conditions that are most conducive to highest ambient impacts.

IPA does not dispute the fact that Ms. Sears's model runs using ASOS data generated higher predicted impacts than the model runs that IPA performed with the NWS observer data supplied by TCEQ. IPA does dispute, however, that Ms. Sears's higher predicted impacts demonstrates that IPA did not model worst-case conditions. Mr. Stormwind's testimony addressed a number of concerns relating to the use of the ASOS data supported by Ms. Sears, most notably:

- Wind speeds recorded with ASOS are truncated by the data processor to the next lower whole integer, which affects the accuracy of the measurement and can bias the wind speed data low – by over 20% – and have a significant effect and upward bias on modeling results.
- The ASOS processor will classify a measurement as “variable wind” if wind direction varies by more than 60 degrees during the two-minute observation period, which will cause the observation for that hour to be excluded from the model and increase the number of missing hours.
- The NWS observer-based data used by IPA included measurements down to 2 knots (approximately 1 meter per second), while the minimum wind speed reported by ASOS is 3 knots (1.54 meters per second).

Applicant's Ex. 65 at 7:12 - 8:9 & 10: 11-26 (B. Stormwind Rebuttal). Characteristics of the ASOS data supported by Sierra Club and Ms. Sears that generate higher predicted impacts, but also call into question the reliability or accuracy of the model results, do not represent “worst-case conditions.” IPA modeled worst-case conditions in accordance with EPA and TCEQ policy, and Sierra Club's exception on this point should be overruled.

C. IPA complied with Commission policy in excluding haul road emissions from short-term model runs.

IPA included road dust particulate matter emissions in its annual average PM₁₀ preliminary impact analysis, in which it evaluated whether the predicted annual PM₁₀ impacts

from CC2 project sources exceed the applicable significant impact level (“SIL”). Applicant’s Ex. 28 at 17:9-13 and 30:28-33 (B. Stormwind). IPA excluded haul road emissions from the 24-hour PM₁₀ preliminary impact analysis, however, in accordance with the TCEQ’s Air Quality Modeling Guidelines and Commission precedent. The ALJs upheld this practice, concluding “that Commission policy and precedent are clear” that short-term PM emissions from haul roads are not reliable and should not be included in short term (24-hour) air dispersion modeling. PFD at 64. Sierra Club excepts to the ALJs’ conclusion regarding the modeling of short-term haul road emissions. Sierra Club’s Exceptions at 14. Because the ALJs’ determination finds technical support in the record and is grounded in clear Commission policy, the Commission should overrule Sierra Club’s exception.

As stated above, the TCEQ’s Air Quality Modeling Guidelines direct applicants to exclude haul road emissions from short-term model runs. Applicant’s Ex. 30 at p. 58 (TCEQ Air Quality Modeling Guidelines). The same guidance is provided in a February 25, 2000 TCEQ memorandum from John Steib, then-Director of the Air Permits Division, titled “Policy on Road Emissions.” Applicant’s Ex. 33 at 1 (TCEQ Interoffice Memorandum, Policy on Road Emissions (2000)).

In addition to TCEQ guidance, the exclusion of plant road emissions is well-settled before the Commission. Sierra Club made the same arguments challenging the exclusion of haul road emissions from 24-hour PM₁₀ model runs in the NRG Texas Power LLC Limestone Unit 3 matter, another SOAH contested case hearing regarding the air quality permit applications for a coal-fired electric generating unit. In their June 2009 PFD, Administrative Law Judges Craig Bennett and Tommy Broyles concluded, with regard to the exclusion of haul road emissions, “the Commission’s adoption of this policy is well-established and the ALJs have no basis for disregarding it.” Applicant’s Cross Ex. 13 at p. 75 (NRG Texas Power LLC PFD). On December 9, 2009, the Commission voted 3-0 to issue the permit and approve the modeling demonstration that excluded haul road emissions from the 24-hour NAAQS model runs. Finding of Fact No. 55 in the Commission’s December 11, 2009 Final Order reads, “[u]nder TCEQ’s modeling guidance, modeling of road dust is explicitly excluded for short-term averaging permits.” Limestone Unit 3 Final Order at 9 (emphasis added). This finding is consistent with the Commission’s prior orders in the Oak Grove (2007) and Sandy Creek (2006) contested case

hearings. *See* Applicant's Ex. 27 at 5 (Oak Grove Final Order); *see also* Applicant's Ex. 26 at 5 (Sandy Creek Final Order).

D. The ALJs correctly concluded that IPA used medium surface roughness in modeling ambient impacts around the Coletto Creek Station.

The surface roughness of the Coletto Creek Station is another model input that was disputed in this matter. Surface roughness is related to the height of obstacles to wind flow, and is affected by topography, vegetation and buildings or other manmade structures that serve as obstacles to wind flow across land. Applicant's Ex. 28 at 21: 26-30 & 22: 12-23 (B. Stormwind). The TCEQ has made available three sets of meteorological data for modeling projects in Goliad County, and the applicant selects a meteorological data set based on the characteristics of the site to be modeled: whether the area's surface roughness is properly classified as "low" - flat areas, "medium" - rural/suburban areas, or "high" - urban/industrial areas. Applicant's Ex. 28 at 22: 16-19 (B. Stormwind); Applicant's Ex. 35 (TCEQ AERMOD Training Guide).

IPA made both qualitative and quantitative surface roughness determinations for the Coletto Creek Station. All of IPA's evaluations concluded that the Coletto Creek Station should be classified as medium surface roughness. EDF, based on the testimony of its witness Arnold Srackangast, argues that the Coletto Creek Station should be classified as low surface roughness. After a lengthy review of the various surface roughness determinations in the PFD, the ALJs find Mr. Stormwind's evaluation of the Coletto Creek Station's surface roughness "more persuasive" and conclude that "IPA's modeling properly assumed that the surface roughness was medium." PFD at 90.

EDF excepts to the ALJs' conclusion, challenging the physical location on which IPA centered its quantitative surface roughness evaluation performed with the AERSURFACE program. EDF's Exceptions at 9. As explained in the PFD, IPA set the center point of its AERSURFACE evaluation in accordance with the applicable AERSURFACE guidance, and the record fully supports the ALJs' conclusion to uphold IPA's determination. EDF's exception on this point should be overruled.

IPA's initial qualitative evaluation of the surface roughness of the Coletto Creek Station was performed in the summer of 2007, based on the surface characteristics of the Station.

2 Tr. 454: 14-21 (B. Stormwind). Mr. Stormwind made this evaluation prior to the release of the AERSURFACE program. As Mr. Stormwind testified, “[b]ased on my review of the area of the Station from satellite images and my visit to the Station, the area is primarily a mixture of trees, shrubs, grassland, water, buildings and facility structures and residential land uses.” Applicant’s Ex. 28 at 22: 19-22 (B. Stormwind). Mr. Stormwind concluded that the Coletto Creek Station was properly classified as medium surface roughness. Applicant’s Ex. 28 at 22:22 (B. Stormwind). Mr. Stormwind contacted the TCEQ Air Permits Division prior to selecting the meteorological data for the Coletto Creek Station modeling, and TCEQ modeler and the Executive Director’s expert witness Dan Schultz concurred at the time that the medium surface roughness data set should be used for modeling the Coletto Creek Unit 2 project. Applicant’s Ex. 65 at 23: 28-30 (B. Stormwind).

Both EDF and IPA performed quantitative surface roughness evaluations for the Coletto Creek Station using the AERSURFACE program during the contested case hearing. While IPA’s AERSURFACE evaluations confirmed its prior determination that the Station is medium surface roughness, EDF generated AERSURFACE results indicating that the Station’s surface roughness should have been classified as low. EDF’s and IPA’s AERSURFACE evaluations are presented on Applicant’s Exhibit No. 98. EDF’s first AERSURFACE evaluation is invalid, as it was based on erroneous land cover data. 6 Tr. 1289:4-19 (B. Stormwind); 3 Tr. 707:19-714:6 (A. Srackangast). EDF corrected the land cover data for the second AERSURFACE run that it presented during the hearing on the merits; however, improper placement of the center point of the analysis led to erroneous results.

EPA’s AERSURFACE User’s Guide directs modelers to use “the center of the site location” as the center point of the AERSURFACE analysis. EDF’s Ex. 102 at 10. (AERSURFACE User’s Guide). The User’s Guide also refers to the center point as the “site center” and “the center of the study area.” EDF’s Ex. 102 at 9, 10 (AERSURFACE User’s Guide). Applicant’s Exhibit No. 99, an aerial photograph of the Coletto Creek Station identifying the locations of EDF’s and IPA’s AERSURFACE evaluation center points, clearly establishes that IPA’s evaluation follows the direction of the AERSURFACE User’s Guide. EDF, by contrast, centered its AERSURFACE evaluation on the CC2 stack, which is nowhere near the center of the plant, and is not centered based on the various sources that will have an increase in emissions from the CC2 project.

Faced with Applicant’s Exhibit No. 99’s indisputable visual evidence that IPA properly identified “the center of the site location” for its AERSURFACE evaluation, EDF challenges IPA’s evaluation because its center point is “pollutant-specific” as the center of all project sources that will emit PM, but not *every* CC2 project pollutant. EDF’s Exceptions at 9. EDF’s argument is not grounded in the applicable guidance. The AERSURFACE guidance document directs applicants to use “the center of the site location,” but does not specify that this point is the center point for every pollutant from every project source. (Note that EDF argues for an AERSURFACE center point that Mr. Srackangast’s own evaluations fail to satisfy.) Given the locations of the various physical structures and emissions sources that will be found on the Coletto Creek Station following construction of CC2 and its associated facilities, IPA centered its AERSURFACE study at an appropriate location that is clearly more centered on the site than the point used by Mr. Srackangast. *See* Applicant’s Ex. 99. EDF’s exceptions on this point should be overruled.⁴

V. The ALJs correctly concluded that the CC2 project will not cause or contribute to an exceedance of the NAAQS.

A. IPA has demonstrated that the CC2 project will not cause or contribute to an exceedance of the PM_{2.5} NAAQS

IPA demonstrated compliance with the PM_{2.5} NAAQS based on the PM₁₀ Surrogate Policy. The PM₁₀ Surrogate Policy, established by rule by EPA and repeatedly upheld by the Commission, allows an applicant to demonstrate compliance with PSD permitting requirements for PM_{2.5} — including the air dispersion modeling demonstration that a project will not cause or contribute to a violation of the PM_{2.5} NAAQS — with a demonstration that the project will not cause or contribute to a demonstration of the PM₁₀ NAAQS. The PM₁₀ demonstration serves as a surrogate for a PM_{2.5} demonstration. *See* Applicant’s Ex. 27 (Memorandum from John Seitz to EPA Division Directors, *Interim Implementation for New Source Review Requirements for PM_{2.5}* (October 23, 1997)); Applicant’s Ex. 28 (Memorandum from Stephen Page to EPA Division Directors, *Implementation of New Source Review*

⁴ EDF also excepts that the application should be denied or remanded “because the evidence establishes that the choice of center location greatly influences the surface roughness determination and modeling.” EDF’s Exceptions at 9. The fact that moving the center point of an AERSURFACE evaluation can affect the results is not specific to this Application or to the CC2 project, is wholly unrelated to the contents of the Application, and is in no way grounds for denying or remanding the Application. EDF’s Exception on this point is groundless.

Requirements for PM_{2.5} Nonattainment Areas (April 5, 2005); Applicant's Ex. 29 (73 Fed. Reg. 28,321 (May 16, 2008) (*PM_{2.5} Implementation Rule*); *see also* Applicant's Ex. 30 at Section 3.6 (TCEQ Air Quality Modeling Guidelines); Limestone Unit 3 Final Order at 14 (December 11, 2009) ("Both EPA and TCEQ accept demonstration of compliance with the PM₁₀ NAAQS as a surrogate for demonstration of compliance with the PM_{2.5} NAAQS.").

The ALJs upheld IPA's use of the PM₁₀ Surrogate Policy, finding that IPA demonstrated that the CC2 project will not cause or contribute to a violation of the PM_{2.5} NAAQS based on its PM₁₀ demonstration. PFD at 93. In its exceptions, EDF argues that IPA has made "no permit-specific justification" for using the PM₁₀ Surrogate Policy, citing the August 2009 "Trimble Order." EDF's Exceptions at 5. EDF wholly ignores the PM₁₀ Surrogate Policy demonstration set forth in IPA's prefiled rebuttal testimony, and is flat wrong. IPA's use of the PM₁₀ Surrogate Policy finds support both in Commission precedent and in the record in this matter, and EDF's exceptions on this point should be overruled.

EDF also relies heavily on a proposed rule issued by EPA 60 days after the close of the record in this matter, on February 10, 2010, in filing its exceptions regarding IPA's PM_{2.5} compliance demonstration. While the proposed rule does not affect TCEQ's authority to issue the CC2 project permit based on the PM₁₀ Surrogate Policy, the proposed rule is not a part of the record in this matter and it should not be part of the Commission's consideration of the Application and Draft Permit.

1. EDF mischaracterizes the Trimble Order.

EDF cites the Trimble Order for the proposition that "blind reliance on the policy is simply not sufficient." EDF's Exceptions at 6. EDF wholly fails, however, to note that EPA recognizes the continued validity of the PM₁₀ Surrogate Policy in the Trimble Order, and offers an approach for demonstrating that PM₁₀ is a reasonable surrogate for PM_{2.5}. EDF's Ex. 18 at 45 (Trimble Order). Without suggesting that the following two steps "are necessary or sufficient" to demonstrate that PM₁₀ is a reasonable surrogate for PM_{2.5}, EPA states:

First, the source or the permitting authority establishes in the permit record a strong statistical relationship between PM₁₀ and PM_{2.5} emissions from the proposed unit, both with and without the proposed control technology in operation. . . .

Second, the source or the permitting authority demonstrates that the degree of control of PM_{2.5} by the control technology selected in the PM₁₀ BACT analysis will be at least as effective as the technology that would have been selected if a BACT analysis specific to PM_{2.5} emission had been conducted. We present here two possible paths to accomplish this. The first would be to perform a PM_{2.5}-specific BACT analysis

EDF's Ex. 18 at 45 (Trimble Order). As explained below, the record in this matter demonstrates that PM₁₀ is a reasonable surrogate for PM_{2.5} for the CC2 project.

2. IPA demonstrated compliance with PM_{2.5} in accordance with the Trimble Order.

The record demonstrates that IPA has met the criteria outlined in the Trimble Order to rely on the PM₁₀ Surrogate Policy. EDF ignores IPA's rebuttal evidence regarding PM₁₀ and PM_{2.5} that satisfies the Trimble Order criteria. Furthermore, no other party to the hearing offered any evidence to the record that refuted IPA's PM₁₀ Surrogate Policy demonstration included in its prefiled rebuttal testimony.

IPA expert witness Robert Fraser specifically discussed the clear relationship between filterable PM_{2.5} and filterable PM₁₀, as well as condensable PM_{2.5} and condensable PM₁₀. First, IPA demonstrated the relationship between the emission control of filterable PM_{2.5} and PM₁₀. Mr. Fraser testified that the AP-42 Table B.2-3 (EPA published guidance and data) provides the expected removal efficiency of filterable PM_{2.5} across a fabric filter as 99%. Applicant's Ex. 84 at 27:39-41 (R. Fraser); EDF's Ex. 39 and Sierra Club's Ex. 338 (EPA AP-42). He testified that while larger size fractions from PM_{2.5} to PM₁₀ are expected to be captured at an even greater rate, it is clear that the fabric filter control technology proposed for CC2 will very effectively collect both fractions. Even protestant Sierra Club recognizes that fabric filters control PM emissions of any size fraction. Sierra Club's Closing Arguments at 35, n. 35. No greater level of control of filterable PM_{2.5} has been identified from any similar operating unit or is listed in the RBLC. Applicant's Ex. 84 at 27:33-28:5 (R. Fraser).

IPA also conducted a full and proper BACT analysis for PM_{2.5}. As IPA expert Mr. Fraser explained: "CC2, through the application of BACT—fabric filter for filterable particulate; good combustion control for volatile organics; low-sulfur fuel and semi-dry scrubbing for the PM_{2.5} precursors SO₂ and H₂SO₄ and low NO_x combustion plus SCR for the

PM_{2.5} precursor NO_x—will employ BACT for the fraction of PM₁₀ that is finer than 10 microns. Emissions of PM_{2.5} are specifically addressed in the BACT evaluation for CC2.” Applicant’s Ex. 84 at 25:23-30 (R. Fraser); Applicant’s Ex. No. 3 at IPA 0000072 – IPA 0000077 (Application). Furthermore, with regards to condensable PM_{2.5}, by employing BACT for PM₁₀, which includes condensable PM₁₀, CC2 will employ BACT for condensable PM_{2.5}, since they are essentially one and the same. Applicant’s Ex. 84 at 27:10-15 (R. Fraser).

EDF mischaracterizes the effect of the Trimble Order, and ignores the evidence in the record regarding PM₁₀ and PM_{2.5} that satisfies the Trimble Order criteria for demonstrating that PM₁₀ is a reasonable surrogate for PM_{2.5} for purposes of IPA’s demonstration of compliance with the PM_{2.5} NAAQS. No other party offered any evidence refuting IPA’s PM₁₀ Surrogate Policy demonstration. EDF’s exceptions on this point should be overruled.

B. IPA has demonstrated that the CC2 project will not cause or contribute to an exceedance of the ozone NAAQS.

In the Proposal for Decision, the ALJs found that the “proposed emissions will not cause or contribute to an exceedance of the ozone NAAQS.” PFD at 93; FOF Nos. 79-89; 237; COL Nos. 50; 57-58. This finding is absolutely supported by the evidence in the record and is not contradicted by any expert witness in this proceeding. The CC2 project is *de minimis* for VOC and thus, no photochemical ozone analysis was required. Nevertheless, the Applicant performed a photochemical ozone analysis, and that photochemical analysis together with the other evidence in the record demonstrate that emissions from CC2 will be protective of the NAAQS. Therefore, the ALJs’ proposed findings of fact and conclusions of law should be accepted by the Commissioners without exception.

1. VOC emissions from CC2 do not trigger ozone ambient impact analysis requirements.

Protestants largely base their exceptions on this issue on the ALJ’s discussion in their Proposal for Decision describing the CC2 project as *de minimis* for VOC. PFD at 94-95. Protestants wrongly argue that the CC2 project is not *de minimis* for VOC with respect to the requirement to conduct an ozone analysis. However, EPA has established a regulatory threshold of 100 tons per year of VOCs below which there is no requirement to conduct an ambient air analysis for ozone. IPA and the ALJs reasonably referred to this as a *de minimis* level. The

emissions of VOCs from the CC2 project are below this level for ozone, and thus, according to the rules Protestants seek to apply in this case, no ozone analysis was required.

Protestants argue that the Application should be subject to the federal and state PSD regulations that are approved as part of the Texas SIP, including the former version of 30 TAC § 116.160 (incorporating by reference the federal definition of BACT set forth in 40 CFR § 52.21).⁵ CCE’s Closing Arguments at 2 and Attachment 1; EDF’s Exceptions at 2; Sierra Club Exceptions at 10-11. The former State PSD rule that Protestants seek to apply in this case –the 1996 version of section 116.160 – incorporates by reference the federal PSD rules only as they were amended through March 12, 1996. *See* CCE’s Closing Arguments at Attachment 1; 69 Fed. Reg. 43,752 (July 22, 2004). The 1996 federal PSD rules specified that an ozone analysis would only be required if the project’s VOC emissions are greater than a 100 tons per year threshold: “No *de minimis* air quality level is provided for ozone. However, any net increase of 100 tons per year or more of volatile organic compounds subject to PSD would be required to perform an ambient impact analysis including the gathering of ambient air quality data.” 40 C.F.R. § 52.21(i)(8)(i) n.1 (1996). EPA more succinctly expressed this requirement in its comments on the Midlothian Cement Plant permitting matter when it stated that “40 CFR 52.21(i)(8) requires an ambient impact analysis for O₃, if the source’s VOC emissions subject to PSD exceeds 100 tons/year.” CCE’s Ex. 9 at 7. The net emissions increase of VOC emissions from the CC2 project is 99.7 tons per year, which is less than 100 tons per year of VOCs. Executive Director’s Ex. ED-8 at 2 (Preliminary Determination Summary); Executive Director’s Ex. ED-9 (MAERT). Therefore, using the very rules that Protestants argue are applicable in this proceeding, the CC2 project is *de minimis* for ozone and no ambient impact analysis for ozone is required for the CC2 project.⁶

In weighing all the evidence in the record, the ALJs properly noted in their Proposal for Decision that VOC emissions from the CC2 project were below the 100 tpy

⁵ Protestants illogically argue on one hand that the former 1996 SIP-approved version of section 116.160 governs the BACT review in this case, while also arguing that a more recent version of section 116.160 governs the issue of whether an ambient air analysis for ozone would be required.

⁶ IPA did not argue, and the ALJs did not find, that the CC2 project is not subject to PSD review for VOC. The CC2 will result in a net significant increase in VOC emissions of greater than 40 tpy, and the project was therefore subject to PSD review for VOC. FOF No. 235. However, that finding does not mean that an ambient air analysis for ozone is required.

threshold, which is especially significant in view of the fact that the county where CC2 will be located and the nearby surrounding areas are VOC-limited. *See* PFD at 94. Goliad County, the location of CC2, and the surrounding Victoria, Austin, San Antonio, and Dallas/Fort-Worth areas are all NO_x-dominated and VOC-limited. Thus, it is particularly relevant that the emissions of VOC from CC2 are below the EPA specified level of 100 tpy, because, if NO_x dominates an area, more VOCs are needed to produce ozone. *Id.*

2. Ozone analyses demonstrate that impacts from CC2 will be insignificant.

In the final analysis, there is no reason to debate whether an ozone analysis was required in support of the Application.⁷ As the ALJs note, the Application was supported by two independent ozone analyses: an ozone screening analysis as required by TCEQ guidance and regional photochemical modeling. PFD at 94-96; 99-109. In Texas, these analyses represent appropriate methods to evaluate whether the CC2 project would result in a significant impact in ozone concentrations. Both of these analyses confirmed that emissions from CC2 would not result in ozone impacts on regulatory monitors in excess of TCEQ-established significance levels for ozone, and would not cause or contribute to a violation of either the 0.08 or 0.075 ppm ozone NAAQS.

In its exceptions, CCE largely ignores the evidence in the record regarding the ozone analyses presented by IPA in support of the Application and instead complains about actions of the Executive Director and the Commission. CCE attacks the Executive Director for his review of the ozone analyses presented in the Application in Sections II.A-C and attacks the Commission for its prior rulings using as a guide a significance level of 5 ppb to evaluate the significance of ozone impacts of project in Section E. These attacks are without merit.

First, the Texas Clean Air Act specifies that “[t]he commissioners shall grant within a reasonable time a permit or permit amendment to construct a facility if, from the information available to the commission, *including information presented at any hearing under Section 382.056(k)*, the commission” makes the requisite findings. TCAA § 382.0518(b). The issue is not what the Executive Director did or did not do as part of his review of the Application,

⁷ The findings of fact and conclusions of law proposed by the ALJs do not set forth the conclusion that no ozone analysis was required.

but whether the evidence in the record demonstrates that the Application meets all applicable requirements. Here, the evidence in the record fully supports the ozone analyses presented in support of the Application and how they demonstrate protection of the ozone NAAQS. These analyses were included in the Application for full review and comment by the public and withstood scrutiny in a contested case hearing. There is no error in the review afforded this Application.

Second, TCEQ may establish significance levels for ozone since EPA has wholly failed to do so. EPA has entrusted the determination of what is significant to the reasonable discretion of the permitting authority, which in this case is the TCEQ. Mr. McNally testified that EPA's failure to set a significance level does not preclude the State of Texas from setting one. 3 Tr. 634:6-13 (D. McNally). In the *Sandy Creek Energy Associates, L.P. and Oak Grove Management Company, LLC* permitting matters, and more recently in the *NRG Texas Power LLC* permitting matter, the Commission used 5 ppb, which corresponds to the lower range of detectability of modern ambient ozone monitors, as a significance level for evaluating potential ozone impacts. PFD at 98; Applicant's Ex. 26, Finding of Fact 76 (Sandy Creek Final Order); Applicant's Ex. 27, Finding of Fact 78 (Oak Grove Final Order); *see also* Applicant's Ex. 47 at 8:19-22 (D. McNally). As Mr. McNally testified, "[f]or the Oak Grove and Sandy Creek Project Orders (TCEQ, 2006a, item 78, TCEQ, 2006b, item 76), the TCEQ established the significance level at 5 ppb, the lower range of detectability of modern ambient ozone monitors. In my opinion, emissions from the CC2 project will only result in ozone impacts that are far below 5 ppb and are therefore not significant according to TCEQ precedent." Applicant's Ex. 47 at 10:9-13 (D. McNally); *see also* 3 Tr. 525:1 - 527:15 (D. McNally). CCE can point to no evidence in the record that suggests that ozone impacts from the CC2 project even approach the significance level previously established by the TCEQ.

In summary, as the ALJs found, IPA demonstrated that that the CC2 project will not cause or contribute to a violation of either the 0.08 ppm or 0.075 ppm form of the 8-hour ozone NAAQS. The geographic scope of IPA analyses was appropriate, and the impacts predicted at regulatory monitors were properly deemed insignificant, as found in the proposed FOF Nos. 79-89; 237; COL Nos. 50; 57-58. No witness at the hearing presented evidence contradicting this proposed findings. The inescapable conclusion based on a consideration of the

record is that IPA has fulfilled established TCEQ policy and precedent with respect to its ozone demonstration and adverse ozone impacts are therefore not expected due to the CC2 project.

VI. The ALJs correctly concluded that the CC2 project will be protective of human health and the environment.

A. IPA conducted voluntary on-property state effects review modeling for purposes of the hearing.

IPA conducted the modeling submitted in support of the Application using two different receptor grids, in accordance with TCEQ and EPA guidance. The receptor grid used for federal NAAQS and PSD increment modeling started at the federal ambient air boundary, where a fence line or other barrier controls access by the general public. Applicant's Ex. 28 at 26:14-19 (B. Stormwind). The modeling conducted to evaluate compliance with the state property line standards and for the state effects review modeling started at the Coletto Creek Station property line, in accordance with the TCEQ's Air Quality Modeling Guidelines and the TCEQ's Modeling and Effects Review Applicability guidance documents. Applicant's Ex. 28 at 27: 6-9 (B. Stormwind).

The area where receptors were placed for the NAAQS and PSD increment modeling, but not for the state analyses, is property owned by Coletto Creek Power, LP ("CCP"), but is beyond the immediate boundaries of the station, and the public can access this area. Applicant's Ex. 28 at 44:23-24 (B. Stormwind). It roughly corresponds to a small area adjacent to the Coletto Creek Station on and near Perdido Creek, which is a tributary of the Coletto Creek Reservoir. Even though it is owned by CCP, CCP currently allows use of that area for boating and fishing. Applicant's Ex. 28 at 44:24-27 (B. Stormwind).

Despite the absence of any requirement to perform on-property modeling for the state effects review, IPA performed supplemental on-property, Perdido Creek modeling for purposes of the hearing. The supplemental on-property modeling allowed for an evaluation of those on-property impacts using the TCEQ's ESLs, to demonstrate that proposed emissions from CC2 would not have adverse health effects. Applicant's Ex. 44A and 45 (On-Property Modeling). The results of that supplemental modeling were presented as part of IPA's prefiled testimony, and are discussed at length in IPA's Closing Brief. Dr. Jong-Song Lee of the TCEQ Toxicology Division conducted a health effects review of IPA's on-property Perdido Creek

modeling results, as documented in a memorandum that he prepared for Mr. Sean O'Brien dated October 2, 2009. *See* Applicant's Cross Ex. 3. Dr. Lee concluded that, based on the predicted on-property impacts of silica, lime dust and coal dust over the areas of Perdido Creek to which the public has access, "we do not expect adverse health effects to occur among the general public, as a result of exposure to the proposed emissions from this facility." Applicant's Cross Ex. 3.

B. The ALJs properly upheld the conclusion of Dr. Lee and Applicant's witness Dr. Dydek that the predicted on-property Perdido Creek impacts will be protective of public health.

The ALJs reached the following conclusion after consideration of the predicted on-property Perdido Creek impacts and evaluating the testimony of the parties' expert witness toxicologists:

The ALJs find that the emissions of coal dust from CC2 would not cause adverse effects due to short-term exposure. While the peak 1-hour concentration of coal dust would be 4.06 times the ESL, the weight of the evidence shows that would be approximately 1/25th of the concentration protective of workers exposed to it over the long term, since short-term ESLs are set at 1/100th of that worker-exposure level. Moreover, that peak short-term concentration would occur only 0.5% of the year at a point or points on a water body, which would not be locations that would lend themselves to a frequent presence. Under these circumstances, the ALJs agree with Dr. Dydek and Dr. Lee. They would not expect adverse effects due to short-term exposure of coal dust emissions from CC2.

PFD at 117. EDF excepts to the ALJs' conclusion, arguing (1) that it is not appropriate to compare the GLC_{max} to the worker exposure level and (2) that certain modeling files supplied by the applicant indicate that there are additional on-property Perdido Creek receptors with predicted impacts greater than the ESL (though lower than the peak receptor cited by the ALJs). EDF's Exceptions at 11.

The ALJs' conclusion that the predicted on-property Perdido Creek impacts of coal dust will not cause adverse health effects is not based solely on a comparison of IPA's on-property modeling results to worker exposure levels. While the ALJs note that the predicted impacts are a small fraction (1/25th) of the worker exposure level, the PFD's review of the

relevant evidence identifies a number of factors that support Dr. Lee's (and the ALJs') conclusion:

- the predicted coal dust impacts are conservative because they are based on the conservative and unlikely assumption that all coal operations will occur simultaneously;
- the predicted impacts are conservative because the modeling assumed wind speeds were high in order to maximize the amount of coal dust blowing from piles, while maximum concentrations only occur under the opposite condition, when wind speeds are low;
- the frequency of predicted exceedances is small;
- no individual is likely to be at the same receptor; and
- the predicted exceedance is of the short-term ESL, and the ESL for coal dust is set primarily to protect against chronic (long-term) effects, such as fibrosis or chronic obstructive pulmonary disease.

PFD at 115. The ALJs' conclusion is not based on a comparison of the predicted impacts to the worker exposure level, and EDF's exception on this point should be overruled.

EDF also argues that the Commission should consider that IPA's modeling predicted exceedances of the 1-hour ESL for coal dust at other on-property Perdido Creek receptors, despite the fact that the ALJs did not find this evidence compelling. EDF's Exceptions at 11. The ALJs recognized that the model predicted impacts above the ESL at on-property Perdido Creek receptors other than the receptor with peak impacts. As quoted above, the ALJs explained that "peak short-term concentration would occur only 0.5% of the year at a point or points on a water body, which would not be locations that would lend themselves to a frequent presence." PFD at 117 (emphasis added). Even with modeled concentrations above the ESL at multiple receptors located on Perdido Creek, the fact remains that members of the public will have transient exposure on a recreational water body. The existence of 12 other Perdido Creek receptors does not invalidate the premise that no person will have a "frequent presence" in any part of Perdido Creek, including the areas at which the maximum 1-hour coal dust impacts are predicted to occur. EDF's exception should be overruled.

C. Finding of Fact No. 132 is consistent with Commission guidance.

The ALJs' conclusion that there will be no adverse health effects from the CC2 project on- or off-property is based in-part on the testimony of the Executive Director's witness Dr. Lee, and the Executive Director concurs with the ALJs' conclusion. The Executive Director excepts, however, to the ALJs' proposed Finding of Fact No. 132 that "[e]valuation of on-property impacts of non-criteria pollutants is not required per TCEQ guidance." Executive Director's Exceptions at 2. Finding of Fact No. 132 is, however, solidly based on TCEQ guidance. See Applicant's Ex. 36 (TCEQ, *Modeling Effects and Review Applicability: How to Determine the Scope of Modeling and Effects Review for Air Permits* ("MERA") (2001) & Applicant's Ex. 37 (2008 MERA)).⁸

In the MERA, the state effects review process is again and again focused on off-property receptors. According to the MERA, one of the two purposes of a state effects evaluation is to "establish off-property ground-level air concentrations (GLCs) of constituents resulting from the proposed emissions." MERA at Appendix D (emphasis added). As specifically detailed in the MERA, "all modeling shall be performed to obtain applicable, maximum off-property, short-term concentrations." MERA at 12 (emphasis added). The GLC_{max} and GLC_{ni} (the receptors with maximum predicted impacts that the MERA directs applicants to compare to the applicable ESLs) are defined respectively as "maximum off-property ground-level concentration at any receptor" and "ground-level concentration at the maximally affected, off-property nonindustrial receptor." MERA at Appendix A (emphasis added). And most critically, ambient air is defined as "that portion of the atmosphere, external to buildings, to which the general public has access (30 Texas Administrative Code (TAC) § 101.1). For purposes of the MERA, ambient air starts at the property line." MERA at Appendix A (emphasis added). Even TCEQ's own state effects review toxicologist Dr. Lee testified that "since TCEQ does not regulate the boundary inside the proposed facility (on-property), only the off-property ground level concentrations are evaluated." See Executive Director's Ex. E-32 at 9:17-21 (J. Lee). Dr. Lee noted that his focus off-property was based on the definition of ambient air in the MERA. See Executive Director's Ex. E-32 at 17:10-21 (J. Lee).

⁸ The Executive Director issued a July 2009 update to the MERA that contains definitions that are identical to the relevant definitions in the 2001 MERA and 2008 MERA.

The Commission's December 11, 2009 Final Order in the Limestone Unit 3 matter is also consistent with the ALJs' proposed Finding of Fact No. 132. In that Order, the Commission found that "TCEQ air permitting guidance specifies that ambient air 'starts at the property line.'" Limestone Unit 3 Final Order at Finding of Fact No. 42.

The Executive Director's proposed changes to Finding of Fact No. 132 are not consistent with current TCEQ guidance. The Executive Director's argument in support of the exception is solely based on the MERA definition of "receptor," which is defined as a "location where the public could be exposed to an air constituent in the ambient air." Executive Director's Exceptions at 2; MERA at Appendix A. Based on this definition, the Executive Director proposes that Finding of Fact No. 132 should note that evaluation of state effects is required "where ambient air exists per TCEQ guidance." Executive Director's Exceptions at 2. But because ambient air is defined to "start at the property line" for the purposes of the MERA, the definition of receptor alone does not support changing Finding of Fact No. 132. Similarly, it is unclear how the Executive Director's proposed change would alter the meaning of Finding of Fact No. 132, since its proposed change is still dependent on how ambient air is defined in the MERA.

The current version of Finding of Fact No. 132 accurately represents current TCEQ guidance. If the Commission believes that ambient air should include on-property receptors for the purposes of the MERA and the state effects review, it should direct the Executive Director to change the applicable guidance document to make the guidance consistent with Commission policy.

VII. Conclusion

The record in this matter conclusively demonstrates that the CC2 project will satisfy the requirements of the TCAA and the FCAA for issuance of the State Air Quality, PSD and case-by-case MACT Permit. In particular, IPA has demonstrated that the CC2 project facilities satisfy BACT and case-by-case MACT.

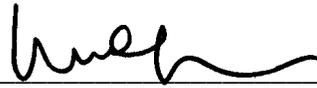
Similarly, the testimony of IPA's expert witnesses Brian Stormwind and Dennis McNally confirms that the modeling conducted for purposes of the Application is reliable and consistent with State and federal regulatory requirements. In fact, IPA's demonstration in many ways goes beyond regulatory requirements by factoring in multiple levels of conservatism in

modeling inputs, evaluating on-property Perdido Creek impacts for purposes of a state effects review, and voluntarily including a photochemical modeling analysis of potential ozone impacts. IPA's audited and approved modeling demonstrates that emissions from the CC2 project will be protective of public health and physical property.

For these reasons, IPA respectfully requests that the Commission issue an Order overruling the exceptions filed by Sierra Club, EDF and CCE, approving the Application and issuing Permit Nos. 83778, PSD-TX-1118 and HAP-18, as included in the record as Applicant's Exhibit No. 12, with the changes recommended by the Executive Director on pages 41 and 42 of his Response to Comments, authorizing construction of the CC2 project. IPA further requests that the Commission adopt the Executive Director's Response to Comments for the Application and Draft Permit, as included in the record as Applicant's Exhibit No. 15.

Respectfully submitted,

BAKER BOTTS L.L.P.

By:  _____

Derek R. McDonald
State Bar No. 00786101
Whitney L. Swift
State Bar No. 00797531
1500 San Jacinto Center
98 San Jacinto Blvd.
Austin, Texas 78701-4039
Tel: 512.322.2500
Fax: 512.322.8342

ATTORNEY FOR APPLICANT
IPA COLETO CREEK, LLC

CERTIFICATE OF SERVICE

I hereby certify that I have served a true and correct copy of the foregoing Applicant IPA Coletto Creek, LLC's Reply to Exceptions and Brief in Support of Proposal for Decision on the following on this 18th day of March, 2010.

STATE OFFICE OF ADMINISTRATIVE HEARINGS

The Honorable William G. Newchurch
The Honorable Richard R. Wilfong
Administrative Law Judges
SOAH Natural Resources
300 West 15th Street, Suite 504
Austin, Texas 78701
Email: bill.newchurch@soah.state.tx.us
Email: richard.wilfong@soah.state.tx.us
Via Email and Hand-Delivery

FOR THE CHIEF CLERK

LaDonna Castañuela
Chief Clerk, MC-105
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239 -3300
Fax: (512) 322-3311
Via E-Filing

FOR SIERRA CLUB

Christina Mann
Layla Mansuri
Environmental Integrity Project
1303 San Antonio Street, Suite 200
Austin, Texas 78701
Tel: (512) 637-9477 / Fax: (512) 584-8019
Email: ccmann@environmentalintegrity.org
lmansuri@environmentalintegrity.org
Via Email and U.S. Mail

FOR CITIZENS FOR A CLEAN ENVIRONMENT

Wendi Hammond
Attorney
7325 Augusta Circle
Plano, Texas 75025
Tel: (972) 746-8540 / Fax: (469) 241-0430
Email: wendi@TexasEnvironmentalLaw.net
Via Email and U.S. Mail

FOR ENVIRONMENTAL DEFENSE FUND

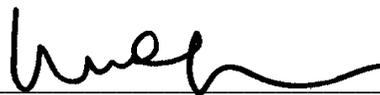
Tom Weber
Paul Tough
Attorneys
1202 Spyglass Dr.
Austin, Texas 78746
Tel: (512) 327-8111 / Fax: (512) 327-6566
Email: tweber@msmtx.com
ptough@msmtx.com
Via Email and U.S. Mail

FOR THE PUBLIC INTEREST COUNSEL

Garrett Arthur, Staff Attorney
Texas Commission on Environmental Quality
Office of Public Interest Counsel (MC-175)
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239-5757 / Fax: (512) 239-6377
Email: garthur@tceq.state.tx.us
Via Email and U.S. Mail

FOR THE EXECUTIVE DIRECTOR

Booker Harrison, Senior Attorney – Air
Ross Henderson – Staff Attorney
Texas Commission on Environmental Quality
Environmental Law Division (MC 173)
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239-4113 / Fax: (512) 239-0606
Email: booharri@tceq.state.tx.us
rhenders@tceq.state.tx.us
Via Email and U.S. Mail



Derek R. McDonald