

State Office of Administrative Hearings



Cathleen Parsley
Chief Administrative Law Judge

December 1, 2010

Les Trobman, General Counsel
Texas Commission on Environmental Quality
P.O. Box 13087
Austin Texas 78711-3087

**Re: SOAH Docket No. 582-09-2005; TCEQ Docket No. 2009-0033-AIR; In Re:
Application of Las Brisas Energy Center, LLC for State Air Quality Permit;
Nos. 85013, HAP48, PAL41, and PSD-TX-1138**

Dear Mr. Trobman:

Enclosed are copies of the Proposal for Decision (PFD) on Remand prepared in the above-referenced matter, along with a proposed order for the Texas Commission on Environmental Quality (Commission). In the PFD on Remand, we address all of the issues remanded by the Commission in its Interim Order of July 1, 2010.¹ At this time, we are unable to recommend that the requested permits be issued, because we find that Las Brisas Energy Center, LLC (LBEC or Applicant) has not made the necessary compliance demonstration to ensure that emissions from the proposed facility would not contribute to air pollution through a violation of a NAAQS or the PSD increment, particularly in regard to particulate matter (PM).

In reaching this conclusion, we are constrained by TEX. WATER CODE § 5.228, which provides that “[T]he executive director or the executive director’s designated representative may not assist a permit applicant in meeting its burden of proof in a hearing before the commission or the State Office of Administrative Hearings.” As discussed in the PFD on Remand, we find that LBEC’s modeling contained errors that made it insufficient to demonstrate compliance with NAAQS and PSD Increment standards. However, the ED conducted his own modeling that corrected such errors and established that the NAAQS and PSD Increment standards would not be violated. Thus, as a factual matter, we believe that the facility will meet applicable air quality standards if operated as proposed by LBEC. But, we are able to reach this conclusion only by relying on the ED’s modeling evidence—something that, in our analysis, would violate TEX. WATER CODE § 5.228 (as discussed at length in the PFD).

¹ This PFD on Remand is intended to supplement, and not replace, the original PFD issued in this matter on March 29, 2010.

The application of TEX. WATER CODE § 5.228—in light of the provisions of TEX. HEALTH & SAFETY CODE § 382.0518 that give an applicant an opportunity to correct certain deficiencies—leads to an unusual result in this case. On the one hand, the application of TEX. WATER CODE § 5.228 leads us to conclude that the ED's modeling evidence cannot be used to meet LBEC's burden of proof. But, on the other hand, TEX. HEALTH & SAFETY CODE § 382.0518 arguably may allow LBEC the opportunity to correct its errors. Thus, this could result in another remand, whereby LBEC would put in modeling similar to what the ED has already offered. This would seem like a pointless exercise, and one which would seem to be a waste of state and private resources. But, to avoid such a pointless exercise, we would have to disregard the statutory prohibitions of TEX. WATER CODE § 5.228. This is something we cannot do, given our interpretation of the statute.

Of course, one could also conclude that TEX. HEALTH & SAFETY CODE § 382.0518 is not intended to give an applicant unlimited opportunities to correct errors. And, since LBEC was already given the opportunity to correct its errors on remand, the Commission is under no further obligation to give it an opportunity to correct any remaining deficiencies. If one reads that statute this way, then the Commission could deny the applications, on the basis that LBEC has not made the necessary compliance demonstration regarding the NAAQS and PSD Increment.

Given the remaining deficiency, we continue to stand by the ultimate recommendation contained in the original PFD. Namely, we cannot recommend that the permits be granted on the record before us. But, because the Commission has only remanded specific issues for our consideration, we make no other recommendation as to how the Commission should handle this matter (*i.e.*, remand for additional consideration or deny the application) given this deficiency. Although we recognize the practical implications and difficulties associated with our findings (mainly in regard to how to handle this case procedurally in light of the deficiencies and TEX. HEALTH & SAFETY CODE § 382.0518), as our agency's core values reflect, our role is simply to call balls and strikes and that is what we have attempted to do in analyzing the issues in the PFD on Remand. To the extent that agency policy considerations beyond the scope of this hearing influence the interpretation of a rule or statute under the Commission's authority, those considerations are left to the province of the Commission.

Any party may file exceptions or briefs by filing the documents with the Chief Clerk of the Texas Commission on Environmental Quality. LBEC has requested that the deadlines for exceptions and replies to exceptions be modified so that the Commission may consider this matter at its agenda of December 14, 2010. We take no position on the shortening of exceptions deadlines, but do note that both of us are scheduled to be in a major CREZ hearing for the Public Utility Commission (in SOAH Docket No. 473-11-0072) the entire week of December 13-17, 2010. That matter is under a statutorily-mandated expedited schedule, involves hundreds of parties, more than a hundred witnesses, and voluminous amounts of documents. Therefore, it cannot be rescheduled. However, if you schedule this matter for consideration during that week, one of us will make sure we are available to attend the agenda, while the other presides over the CREZ hearing.

This matter has been designated **TCEQ Docket No. 2009-0033-AIR; SOAH Docket No. 582-09-2005**. All documents to be filed must clearly reference these assigned docket numbers. All exceptions, briefs and replies along with certification of service to the above parties shall be filed with the Chief Clerk of the TCEQ electronically at <http://www10.tceq.state.tx.us/epic/efilings/> or by filing an original and seven copies with the Chief Clerk of the TCEQ. Failure to provide copies may be grounds for withholding consideration of the pleadings.

Sincerely,



Tommy L. Broyles
Administrative Law Judge



Craig R. Bennett
Administrative Law Judge

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AGENCY: TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
(TCEQ)

STYLE/CASE: APPLICATION OF LAS BRISAS ENERGY CENTER, LLC FOR
STATE AIR QUALITY PERMIT; NOS. 85013, HAP48, PAL41, AND
PSD-TX-1138

SOAH DOCKET NUMBER: 582-09-2005

TCEQ DOCKET NUMBER: 2009-0033-AIR

STATE OFFICE OF ADMINISTRATIVE HEARINGS	TOMMY L. BROYLES ADMINISTRATIVE LAW JUDGE
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**SOAH DOCKET NOS. 582-09-2005
TCEQ DOCKET NOS. 2009-0033-AIR**

APPLICATION OF LAS BRISAS	§	BEFORE THE STATE OFFICE
ENERGY CENTER, LLC FOR STATE	§	
AIR QUALITY PERMIT;	§	OF
NOS. 85013, HAP 48, PAL41, AND	§	
PSD-TX-1138.	§	ADMINISTRATIVE HEARINGS

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PSD-TX-1138.	§	ADMINISTRATIVE HEARINGS

PROPOSAL FOR DECISION ON REMAND

I. INTRODUCTION

On May 19, 2008, Las Brisas Energy Center, LLC (Applicant or LBEC) filed an application with the Texas Commission on Environmental Quality (TCEQ or Commission) for State Air Quality and federal Prevention of Significant Deterioration (PSD) permits to construct four electric generating units (EGUs) and related facilities in Corpus Christi, Nueces County, Texas (the Facility). The EGUs are designed to burn petroleum coke (pet coke) using circulating fluidized bed (CFB) boilers to generate electricity.¹ LBEC proposes to use various emissions control technologies, including limestone injection, a selective non-catalytic reduction system, a polishing scrubber, a fabric filter, and an activated carbon injection system.

On January 7, 2009, the Executive Director (ED) of the TCEQ issued the draft permit. The draft permit was revised on June 11, 2009, in accordance with the ED's review of public comment. The case was directly referred to the State Office of Administrative Hearings (SOAH) for a contested case hearing, and a preliminary hearing was held on February 17, 2009, in Corpus Christi, Texas. The hearing on the merits convened before Administrative Law Judges (ALJs) Tommy L. Broyles and Craig R. Bennett on November 2, 2009. Over 70 persons and entities sought and received party status. Numerous parties appeared and participated in the initial evidentiary hearing. The hearing concluded on November 12, 2009, and the record closed on February 1, 2010, after written closing arguments were filed.

¹ LBEC Ex. 1, at 7.

On March 29, 2010, the ALJs issued their original Proposal for Decision (PFD) in this case. In that PFD, the ALJs found that LBEC had failed to satisfy all of the requirements for issuance of the requested permits. Therefore, the ALJs recommended that the Commission either remand the case to the ED or SOAH for additional review or deny the permit applications. The Commission considered the PFD at its open meeting on June 30, 2010. At that time, the Commission remanded seven issues to SOAH so the ALJs could take additional evidence. Those seven issues identified by the Commission are:

- a) Whether there will be any increase in particulate matter (PM) from off-site material handling sources above what was modeled, or if the ultimate conclusions from the impacts analysis would be unchanged by secondary sources;
- b) Review of additional modeling performed by Applicant in support of the Application;
- c) The ability of Applicant to design and install a conveyer system that will not be a source of emissions;
- d) The ability of Applicant to design and install a system for ash loading into trucks that will not be a source of emissions;
- e) Whether the modeling inputs, with respect to moisture content, for the Port of Corpus Christi Authority facilities are proper;
- f) What are the proper BACT [Best Available Control Technology] emission limits for total particulate matter (PM/PM₁₀) and mercury; and
- g) The proper revisions to Special Condition 44 to address any changes in BACT limits.

In its Interim Order, the Commission directed the ALJs to complete the hearing and issue a revised PFD no later than four months later. Unfortunately, the week before the remand hearing was to begin, one of the Protestants' experts, Dr. Roberto Gaspirini, was injured in a serious automobile accident. Dr. Gasparini underwent surgery and was in the hospital for eight days as a result of the accident. Because of Dr. Gasparini's injuries, the ALJs continued the

remand hearing and extended the deadline by which the hearing was to be completed and the revised PFD issued.²

The hearing on remand convened on October 18, 2010, at SOAH's hearings facility in Austin, Texas. The following parties or aligned groups of parties appeared and participated in the hearing:³ (1) LBEC; (2) the Sierra Club; (3) Environmental Defense Fund (EDF); (4) Texas Clean Air Cities Coalition (CACC); (5) Clean Economy Coalition (CEC); (6) the Medical Group, consisting of numerous individual doctors and medical societies; (7) Roger Landress; (8) the ED; and (9) the Office of Public Interest Counsel (OPIC). The hearing concluded on October 21, 2010, and the record closed on November 8, 2010, after written closing arguments were filed.

After considering the evidence and arguments presented, both on remand and at the original hearing, the ALJs conclude that LBEC's air modeling is still deficient and, by itself, will not support the granting of the application, because LBEC has not made the showing required by 40 C.F.R. § 52.21(k) and 30 TEX. ADMIN. CODE § 116.160(c)(2)(B). Namely, LBEC's modeling is not sufficient to show that LBEC's proposed facility will not cause or contribute to air pollution in violation of the NAAQS or any applicable maximum allowable increase over the baseline concentration in any area.⁴ The ED has presented his own modeling that cures the deficiencies in LBEC's modeling, but the ALJs are concerned that the Commission would violate TEX. WATER CODE § 5.228 if it granted the requested permits in reliance on the ED's modeling.

² In extending the Commission-established deadline, the ALJs relied on both statute and the Commission's rules. Specifically, TEX. GOV'T CODE ANN. § 2003.047(e) provides that, "[t]he administrative law judge may extend the proceeding if the administrative law judge determines that failure to grant an extension would deprive a party of due process or another constitutional right." Also, 30 TEX. ADMIN. CODE § 80.4(c)(17) mirrors the language of that statute and provides the same basis for extending the deadline.

³ The ALJs list only the party representatives or representative groups, and not any aligned members of a group.

⁴ See 40 C.F.R. § 52.21(k). This federal regulation is adopted by reference in Texas through 30 TEX. ADMIN. CODE § 116.160(c)(2)(B). Part (k)(2) of 40 C.F.R. 52.21 is often referred to as the PSD increment.

However, the ALJs recognize that there is sparse legal guidance on the meaning of TEX. WATER CODE § 5.228, and the interpretation of that statute is a legal issue that the Commission has authority to decide. Thus, if the Commission disagrees with the ALJs and finds that it may rely on the ED's modeling to find that the NAAQS and PSD Increment will not be violated, then the ALJs find no other deficiencies on remand with the application. If the permits are issued, the ALJs do recommend that additional ordering language be included requiring LBEC to use the off-site material-handling options modeled by it. With these opening comments, the ALJs now turn to the issues remanded by the Commission.

II. DISCUSSION AND ANALYSIS

In addressing the Commission's issues on remand, the ALJs find it appropriate to structure the discussion and analysis of each issue in the same format the Commission referred them. Therefore, the issues are set out below just as the Commission referred them, and are discussed sequentially—except for the first two issues, which are discussed jointly because they are so interrelated.

A. Whether There will be any Increase in Particulate Matter (PM) From Off-Site Material Handling Sources Above What was Modeled, or if the Ultimate Conclusions From the Impacts Analysis would be Unchanged by Secondary Sources?

Review of Additional Modeling Performed by Applicant in Support of the Application.

1. Overview of LBEC's Modeling

On remand, LBEC presented evidence reflecting two potential material handling scenarios for the Port of Corpus Christi Authority (POCCA) to handle the pet coke necessary for LBEC. Both scenarios are based upon the use of existing POCCA docks—one involving the use of Bulk Dock #1 (Option 1) and the other involving the use of Bulk Dock #3 (Option 2).⁵ In

⁵ LBEC Ex. 800, at 9-10; LBEC Ex. 700, at 14; *also* LBEC Exs. 702 and 703.

both scenarios, the pet coke would be transferred from barges and trucks to stockpiles, and then transported to LBEC's site through conveyers.

LBEC classified these two materials handling options—which will occur on POCCA's site—to be secondary sources of emissions of PM. It then performed additional air modeling to determine the impacts of these secondary sources. LBEC expert Kevin Ellis testified that the maximum PM emissions predicted for either materials handling scenario—Option 1 or Option 2—were 3.96 lbs/hr and 6.25 tons/yr.⁶ He added these maximum emissions to those expected from Bulk Dock #2 and concluded that the modeled emissions were less than those modeled by LBEC expert Joseph Kupper at the initial hearing. Originally, Mr. Kupper modeled emissions from Bulk Dock #2 based upon the permit limits at the time and found that such maximum emissions were 14.07 lbs/hr and 17.36 tons/yr in any scenario.

Since Mr. Kupper's modeling, POCCA's permit for Bulk Dock #2 has been revised, and the maximum allowable emissions now are 7.85 lbs/hr (when hourly emissions from stockpiles are considered) and 4.88 tons/yr. Mr. Ellis took these new maximum allowable emission rates under the Bulk Dock #2 permit, and added them to his expected maximum emissions from either Option 1 or Option 2 for LBEC materials handling. Because the combined totals (11.81 lbs/hr⁷ and 11.13 tons/yr⁸) were less than Mr. Kupper's modeled emissions just from Bulk Dock #2 (14.07 lbs/hr and 17.36 tons/yr), he concluded that there will not be any increase in PM from off-site material handling sources above what was modeled before.⁹

Further, Mr. Ellis testified that the PM₁₀ 24-hour increment will not be exceeded under either of the two material-handling options presented by LBEC. While LBEC's modeling did reflect output with predicted violations of the 24-hr PM₁₀ Increment (30 µg/m³), LBEC provided

⁶ LBEC Ex. 700, at 17.

⁷ This is calculated by adding 3.96 lbs/hr (worst case under either Option 1 or Option 2) with 7.85 lbs/hr (maximum allowed now under the Bulk Dock #2 permit).

⁸ This is calculated by adding 6.25 tons/yr (worst case under either Option 1 or Option 2) with 4.88 tons/yr (maximum allowed now under the Bulk Dock #2 permit).

⁹ LBEC Ex. 700, at 22.

analysis to show that this did not occur at any receptor when the modeled impacts from LBEC's sources are significant at the same time of the predicted violations.¹⁰ Specifically related to the source impacts, for Option 1, the high-second-high value projected was 26.12 $\mu\text{g}/\text{m}^3$.¹¹ For Option 2, the high-second-high value projected was 24.20 $\mu\text{g}/\text{m}^3$.¹² Because both of these high-second-high values under either material-handling option is less than the 24-hour PM_{10} increment, Mr. Ellis found the increment will not be exceeded at the time and place LBEC sources are significant and, thus, LBEC's original impacts analysis is unchanged from the inclusion of these secondary sources (*i.e.*, the Option 1 or Option 2 scenarios).

LBEC's modeling on remand also addresses the on-site material handling issues that were not specifically addressed previously and about which the ALJs expressed concern in the original PFD. Specifically, LBEC proposes to use enclosed conveyers that will originate off-site and transport limestone and pet coke onto the site and deliver them directly to a material transfer tower that will then feed those materials into pet coke silos and limestone bunkers.¹³ According to LBEC's experts, the use of enclosed conveyers will eliminate all on-site material handling emissions except those associated with the transfer of materials within the material transfer tower, which will be exhausted through the pet coke silo baghouses.¹⁴ LBEC contends that these emissions were included in LBEC's original modeling with its application and are already accounted for in the draft permit. Thus, LBEC asserts that the on-site material handling operations it now has identified on remand does not impact its original modeling analysis at all.

2. The ED's Review of LBEC's Modeling

The ED's air modeling expert, Daniel Jamieson, conducted his own analysis of the expected emissions under materials handling Options 1 and 2. Because these sources were not considered in the original modeling, Mr. Jamieson concluded that there would be an increase in

¹⁰ LBEC Ex. 700, at 22; LB Ex. 910 at 2.

¹¹ LBEC Ex. 700, at 18.

¹² LBEC Ex. 700, at 18.

¹³ LBEC Ex. 700, at 20; LBEC Ex. 600, at 29; LBEC Exs. 603 and 605.

¹⁴ LBEC Ex. 700, at 20; LBEC Ex. 600, at 29.

PM from off-site material handling sources above what was modeled originally by LBEC.¹⁵ However, Mr. Jamieson also determined, based upon his own modeling, that the ultimate conclusions from the impacts analysis would be unchanged by these secondary sources.¹⁶ Mr. Jamieson's analysis and conclusions are discussed below.

Mr. Jamieson started by reviewing LBEC's modeling. In doing so, he found that there were numerous deficiencies with the modeling. In an audit memo sent to other ED staff on August 25, 2010, Mr. Jamieson stated, "given the deficiencies listed below, the applicant has not sufficiently demonstrated that a 24-hour PM₁₀ Increment violation would not occur at a significant receptor when considering both time and space."¹⁷ The deficiencies identified by Mr. Jamieson were two-fold. First, many of the sources identified with the POCCA tenant leasing pads and its Dock #1 permit were not located consistently with their permit representations. Second, there was insufficient supporting data for the determination of the worst-case operating scenario for the POCCA Dock #2 sources used in the modeling analysis.¹⁸ Because of these deficiencies, Mr. Jamieson was not confident that LBEC's modeling showed no PM₁₀ Increment violation. He then made numerous adjustments to LBEC's modeling—to account for the deficiencies noted by him—and essentially conducted his own modeling which showed, to his satisfaction, that there would not be a 24-hour PM₁₀ Increment violation. Because of this, the ED supports the issuance of the requested permits.

3. The Challenges to LBEC's Modeling

Protestants raise numerous challenges to the air modeling. First, they contend that clearly there will be an increase in emissions from what was modeled before, because LBEC is now including materials handling scenarios that it had not modeled previously. Protestants note that even the ED's experts agree on this point. Moreover, Protestants contend that LBEC has failed

¹⁵ Tr. at 2785; This conclusion was shared by ED expert Randy Hamilton. See Tr. at 3024.

¹⁶ Tr. at 2797.

¹⁷ ED Ex. 51, at 2.

¹⁸ ED. Ex. 51, at 2.

to show that there will not be a violation of the applicable air quality standards if the application is granted. In this regard, Protestants raise the following primary arguments:

- LBEC's modeling incorrectly separates off-site materials-handling emissions from the source emissions, and should have included the off-site materials-handling emissions as part of the source emissions;
- LBEC's modeling is based upon incorrect data and assumptions;
- Because of the deficiencies with LBEC's modeling, LBEC needs to improperly rely on modeling conducted by the ED to meet its burden of proof;
- LBEC has failed to show that the POCCA facility can handle the necessary throughput for LBEC's materials-handling needs;
- LBEC has failed to offer a definitive plan for how it intends to handle its off-site materials-handling needs; and
- LBEC has failed to demonstrate compliance with newly-promulgated NAAQS standards for SO₂ and NO₂.

Each of these arguments is discussed below, along with the ALJs' analysis.

a. Should Off-Site Material-Handling be Modeled as Part of the Stationary Source, Instead of as Secondary Emissions?

As noted above, one of the primary challenges the Protestants bring against LBEC's modeling is that it improperly separates the off-site material-handling operations from the on-site sources of emissions. Protestants contend that LBEC's two alternate material-handling scenarios for dealing with pet coke and limestone by POCCA (for use by LBEC) should be treated as part of the stationary source for modeling purposes. Although Protestants' contention has some intuitive appeal, it is not consistent with the Commission's modeling guidance, when considering the applicable legal definitions for a "stationary source" for modeling purposes.

In analyzing this, the ALJs find it appropriate to first set out the modeling framework. As the ALJs indicated in the original PFD, state and federal regulations require that the owner or operator of a proposed source or modification demonstrate that allowable emission increases

from the proposed source or modification, *in conjunction with all other applicable emissions increases or reductions (including secondary emissions)*, would not cause or contribute to air pollution in violation of the NAAQS or any applicable maximum allowable increase over the baseline concentration in any area.¹⁹

Essentially, then, an applicant must determine emissions both from the stationary source and from secondary sources, and then ensure that those emissions would not contribute to air pollution through a violation of a NAAQS or the PSD increment. The Commission's rules and guidance—including EPA draft guidance documents that the ED's staff has historically used for air quality modeling reviews—give direction for conducting this analysis.²⁰ That guidance provides that the source's impacts at significant levels are modeled first (with significant being defined as having PM emissions of more than 5 $\mu\text{g}/\text{m}^3$). From that modeling, the impact area is determined. An emissions inventory is then developed, and emissions from existing and secondary sources are then modeled along with emissions from the proposed source. These impacts are compared to the PSD increment level to determine whether there is an increment violation. If an increment violation is found, the modeling is further refined to see whether the proposed source's emissions are significant at any violating receptor at the time of each predicted violation.²¹

So, as is apparent from the guidance procedures identified above, it is particularly relevant to know whether a particular source of emissions is part of the stationary source (and, thus, used to determine the area of impact and the times that the LBEC source is significant) or, instead, is only a secondary source (and, therefore, is not modeled initially in determining the area of impact, nor included to determine the times that LBEC's sources are significant). In this case, LBEC and the ED contend that LBEC's two material-handling options on the POCCA site are secondary sources of emissions and should not be used in determining the area of impact or

¹⁹ See 40 C.F.R. § 52.21(k) and 30 TEX. ADMIN. CODE § 116.160(c)(2)(B). As noted previously, part (k)(2) of 40 C.F.R. 52.21 is referred to as the "PSD Increment" in this PFD.

²⁰ See LBEC Ex. 904; Sierra Club Ex. 205, at C.27 (EPA draft New Source Review Manual). See also ED Es. 27 at 17 (ED's Air Quality Modeling Guidelines).

²¹ See LBEC Ex. 904; Sierra Club Ex. 205, at C.52 (EPA draft New Source Review Manual).

when calculating the source emissions to see if they are significant. In contrast, Protestants assert that the material-handling options should be considered part of the stationary source and used to determine the area of impact and in determining when the LBEC source is significant. The ALJs find that LBEC and the ED's conclusions are correct and that the material-handling scenarios on the POCCA site are, in fact, sources of secondary emissions.

Under 40 C.F.R. § 52.21(b)(18), "secondary emissions" are those emissions that would occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the source or modification itself. So, the question is whether the material-handling operations on POCCA's site are part of LBEC's "stationary source." In 30 TEX. ADMIN. CODE § 116.12(35), the Commission's rules define a "stationary source" as "[a]ny building, structure, facility, or installation" that emits a regulated air pollutant. The Commission's rules further define the phrase "building, structure, facility, or installation" as "[a]ll of the pollutant-emitting activities that belong to the same industrial grouping, are located in one or more contiguous or adjacent properties, and are under the common control of the same person (or persons under common control)."²²

So, if LBEC's proposed material-handling options on the POCCA site are to be considered part of LBEC's stationary source for modeling purposes, they must be (1) in the same grouping category as the rest of the facility, (2) contiguous to the LBEC facility site, and (3) under common control with the LBEC facility. There is no dispute that the POCCA site is contiguous with the LBEC site, so this requirement would be satisfied. Although they share different source codes, the LBEC facility and the POCCA material-handling options arguably could be grouped together and treated as a single source for grouping purposes, because the POCCA material-handling options would be support facilities for the LBEC facility.²³ However, regardless of the conclusion about the proper grouping category for the material-handling options, those options would not be under common control with LBEC's facility.

²² 30 TEX. ADMIN. CODE § 116.160(6).

²³ The ALJs do not address this element (of grouping category) in detail, because they find that the determination of whether the proposed POCCA material-handling options are part of the stationary source primarily hinges on the "common control" element.

Therefore, all of the necessary requirements to be included in the stationary source are not met, and the emissions from the POCCA material-handling options are properly categorized as secondary emissions. The basis for this conclusion is discussed below.

Protestants contend that the material-handling options modeled by LBEC will effectively be under LBEC's control—thus meeting the requirement for common control. Protestants point out that it was LBEC's experts who designed the options. Moreover, POCCA's deputy port director, Frank Brogan, testified that no concrete plans had been established for the material-handling options and that it was possible that the operations could be privately owned or operated by a third-party (such as LBEC). Similarly, he testified that LBEC may very well fund the construction necessary for the material-handling options. Given this, Protestants assert that LBEC will have design control, and may very well have financial and/or operational control of the material-handling options.

In support of their arguments, Protestants have cited EPA guidance indicating the methods of determining common control. In particular, an EPA letter from 1998 provides the following guidance:

EPA has established several mechanisms by which sources and permitting authorities can determine whether there may be "common control" over a group of stationary sources. First, common control can be established through ownership of multiple sources by the same parent corporation or by a parent and a subsidiary of the parent corporation. Second, common control can be established if an entity such as a corporation has the power to direct the management and policies of a second entity, thus controlling its operations, through a contractual agreement or a voting interest. If common control is not established by the first two mechanisms, then one should consider whether there is a contract for service relationship between the two companies or if a support/dependency relationship exists between the two companies in order to determine whether a common control relationship exists.²⁴

Protestants go on to note that the EPA, in the same letter from which that analysis comes, ended up finding that common control existed over a power plant and a brewery on the same site, even

²⁴ EDF Ex. 327, at 2.

though they were owned by different companies. They argue that the same outcome should be reached here.

The ALJs agree that the EPA's guidance in that letter is instructive. From that letter, the EPA has delineated four general scenarios, called mechanisms, that may be used to show common control: (1) common ownership; (2) a right of operational control (through a contract or voting interest); (3) a more limited contractual right of control, such as through a contract for service; or (4) a support/dependency relationship that would give effective control. The ALJs agree that any of these mechanisms could establish common control. However, the ALJs find that none of them exist here.

First, the ALJs would distinguish the Coors Brewery decision by the EPA in which these mechanisms are identified. In that decision, the EPA found that Coors Brewery and an on-site power plant were under common control. But, in reaching its decision, EPA noted that the power plant was on the brewery's actual site, supplied the brewery with 100% of its power and provided no power to any other customers. Thus, it was on-site and dedicated solely to the brewery. Moreover, the power plant had been previously owned by Coors but was later sold. Finally, the power plant had a contractual agreement to provide pollution control for the brewery (in addition to supplying power). When Coors had owned the plant, there had never been a doubt that it was part of the same single source as the brewery. The question had only arisen when Coors sold the power plant, but retained the brewery.

In looking at this case, we find none of the factors existing in the Coors case. The material-handling operations would not be on-site and would never have been owned by LBEC. POCCA's docks are used to serve other customers and POCCA provides material-handling operations for many different entities. Although LBEC proposes to obtain materials from POCCA, it does not appear dependent upon POCCA, and POCCA certainly is not dependent on LBEC. POCCA has been in existence for many years, and its ongoing feasibility is not dependent on LBEC.

Moreover, in just looking at the four mechanisms identified in the EPA letter, the ALJs see no basis for finding common control:

- (1) there is no common ownership between LBEC and POCCA;
- (2) there is no right of operational control, through a contract or voting interest, by LBEC over POCCA (in regard to the material-handling options or otherwise);
- (3) there is no existing limited contractual right of control, such as through a contract for service, that would give LBEC control over the operation of the material-handling options; and
- (4) there is no support/dependency relationship between LBEC and POCCA (in regard to the material-handling options or otherwise) that would give LBEC effective control over the material-handling options.

So, none of the mechanisms for finding common control appear satisfied.

The problem with Protestants' arguments is that they depend on certain assumptions that are not currently true. As it stands now, the only things that are known are that POCCA has agreed to work with LBEC for its material-handling needs, and that POCCA and LBEC have cooperated in determining two potential material-handling options. These material-handling options presented by LBEC would occur on POCCA property under POCCA's direction and control, unless POCCA chose to give up control (which it has not explicitly indicated an intention of doing). The factors that Protestants cite as possibly creating the existence of common control simply do not currently exist. LBEC has not provided funding for the material-handling options, has not contracted for service to provide the material handling operations, and has not entered into any agreement—whether written or otherwise—to be given operational control of the options by POCCA. As such, there is just no current basis for finding that the proposed material-handling options on the POCCA site would be under the control of LBEC. Instead, all existing indicators show that they would be under the control of POCCA.

Under these circumstances, then, the ALJs find that the material-handling options on the POCCA site are not under common control with the LBEC facility and, therefore, are not part of the same stationary source as the LBEC facility. Because they are not part of the same source,

emissions from the material-handling options are properly classified as “secondary emissions.” And, under the Commission and EPA guidance, they are not properly included when determining the area of impact, nor when otherwise calculating LBEC’s source emissions to determine when they are significant. Therefore, LBEC was not mistaken in failing to include the POCCA material-handling options in evaluating its source emissions.

b. Is LBEC’s Modeling Based Upon Incorrect Data or Assumptions? And, is the ED’s Modeling Necessary for LBEC to Meet its Burden of Proof?

Protestants also allege that LBEC’s modeling on remand is deficient because it relies on incorrect data and assumptions that ultimately leave the modeling inadequate to meet LBEC’s burden of showing compliance with the 24-hr PM₁₀ increment. For this reason, Protestants assert that LBEC must rely on modeling conducted by the ED as the only way of meeting its burden of proof. However, pursuant to TEX. WATER CODE § 5.228, Protestants insist this is impermissible. That statutory section provides that the ED “may not assist a permit applicant in meeting its burden of proof in a hearing before the commission or the State Office of Administrative Hearings.” Thus, Protestants argue the Commission is not legally allowed to consider the ED’s modeling as meeting Applicant’s burden but rather must deny the Application because LBEC’s modeling is deficient and does not prove that a violation of the PM increment will not occur.

After considering the evidence and arguments, the ALJs conclude that LBEC’s modeling is deficient and that the modeling prepared by the ED’s Air Dispersion Modeling Team (ADMT) is needed for LBEC to meet its burden of proof. However, given the particular facts of this case, reliance on the ED’s modeling puts the ED in the position of assisting LBEC in meeting its burden of proof—a violation of the Water Code. As discussed further below, the ALJs find that once the ADMT found that LBEC’s modeling was deficient and that it did not satisfactorily demonstrate compliance with the PM₁₀ increment, the ED was under no regulatory duty to perform his own modeling. Therefore, the ED’s modeling was not properly offered pursuant to his ordinary regulatory duties nor was it offered to complete the record. As such, the ALJs conclude it would be inappropriate to rely on the ED’s modeling in light of the statutory

prohibition against the ED assisting an applicant.²⁵ The ALJs address these issues in reverse order below (namely, the ALJs address the role of the ED's modeling first, and then address the sufficiency of LBEC's modeling by itself).

Protestants' Evidence and Argument

In 2001, the Texas Legislature amended the Texas Water Code and instructed that, "[T]he executive director or the executive director's designated representative may not assist a permit applicant in meeting its burden of proof in a hearing before the commission or the State Office of Administrative Hearings . . ."²⁶ In this case, it is undisputed that the ED (through the ADMT) performed his own modeling showing that LBEC's proposed source would not violate the 24-hr PM₁₀ PSD Increment. The ED's modeler, Daniel Jamieson, identified numerous deficiencies in LBEC's modeling, then performed his own modeling and issued an ADMT Audit Report that contained his conclusions.

Protestants acknowledge that the ED was required to audit and review LBEC's modeling to determine its adequacy for purposes of the requested PSD permit. However, they argue that ADMT had completed these duties at the point when Mr. Jamieson concluded that LBEC failed to sufficiently demonstrate that a 24-hr PM₁₀ increment violation would not occur at a significant receptor when considering both time and space.²⁷ According to Protestants, the ED overstepped his authority when Mr. Jamieson then made numerous adjustments to LBEC's modeling and performed additional modeling himself, ultimately using this additional modeling to satisfy himself (and, in essence, the ED) that the PSD Increment would not be violated for PM₁₀ (which is one of LBEC's burdens in this contested case). The ED's actions came after LBEC prefiled its direct case evidence, and such actions corrected LBEC's modeling deficiencies. Because the

²⁵ Protestants objected to and sought to exclude the ED's modeling from the record. The ALJs allowed the evidence into the record but reserved ruling until issuance of the PFD. This action was taken to allow development of the record around the ED's modeling to clarify the issue for the ALJs and ultimately the Commission.

²⁶ TEX. WATER CODE § 5.228(e).

²⁷ LBEC Ex. 910, at 2.

ED's evidence is allegedly necessary for LBEC to meet its burden of proof, Protestants maintain that ADMT's actions violated TEX. WATER CODE § 5.228.

Underlying Protestants' assertion that the statute was violated is the legal context within which Mr. Jamieson and the ED acted—that is, while the case remained in a contested case hearing and the ED was a contested case party. In the initial PFD, the ALJs found LBEC had failed to meet its burden of proof, so the Commission remanded the case for additional evidence. However, the Commission did not return the Application to the ED for technical review, as Protestants believe is contemplated by the terms of § 382.0291(d) of the Texas Health & Safety Code.²⁸ Rather, it was returned to SOAH for additional contested case proceedings to address, among other things, additional material-handling considerations and previously un-modeled emissions from such material-handling. Had the Application been remanded to the ED for technical review, the new material-handling options and related modeling could have been processed in the typical manner, with the ED serving its ordinary auditing role. But in this instance, the ED was a party involved in the contested case hearing and chose to correct LBEC's modeling inputs and perform multiple runs of his own air dispersion modeling.²⁹ It is upon this modeling that the ED relied at hearing and now urges the ALJs and Commissioners to rely and find that LBEC's Application may be approved. Protestants contend that, rather than performing its own modeling, ADMT should have simply issued its modeling audit finding that LBEC's modeling was deficient, thus leaving the burden on LBEC to correct the deficiencies.

Reviewing the testimony of Mr. Jamieson and Randy Hamilton, the Commission's permitting engineer, Protestants note the ED made it clear both before and during the hearing that Mr. Jamieson's modeling was essential for the ED's recommended approval of the Application. In the ED's second modeling audit, Mr. Jamieson found LBEC's modeling was deficient, because (1) many sources were inconsistent with their respective permit

²⁸ TEX. HEALTH & SAFETY CODE § 382.0291(D) states: "An applicant for a license, permit, registration, or similar form of permission required by law to be obtained from the commission may not amend the application after the 31st day before the date on which a public hearing on the application is scheduled to begin. If an amendment of an application would be necessary within that period, the applicant shall resubmit the application to the commission and must again comply with notice requirements and any other requirements of law or commission rule as though the application were originally submitted to the commission on that date."

representations and (2) there was insufficient supporting data for the determination of the worst-case operating scenario combination for the POCCA Dock 2 sources. When questioned during the hearing about his findings and whether he would have been able to make a determination that LBEC had shown there was no violation of the 24-hr PM₁₀ Increment without performing additional modeling, Mr. Jamieson stated, “[W]ithout making any of the updates that I made and with the inconsistencies and deficiencies that I saw, I would say no, that it was not a sufficient demonstration.”³⁰ When asked on cross-examination whether anyone had sufficiently demonstrated that a 24-hr PM₁₀ Increment violation would not occur at a significant receptor when considering both time and space, Mr. Jamieson answered that the evaluation he conducted had shown as much.³¹

Also on cross-examination, Randy Hamilton, the Commission’s Permit Engineer, was asked a similar line of questioning:

Q: Mr. Jamieson went through additional steps that were beyond what the applicant had done. Right?

A: Right.

Q: And his additional steps corrected the problems in the applicant’s modeling here. Correct?

A: They -- that’s correct.

Q: And after the additional modeling that Mr. Jamieson did, it is now the executive director’s position that the permit can be granted. True?

A: Yes.

Q: And as we saw, the additional work that Mr. Jamieson did was a necessary part of getting the executive director’s approval of the proposed permit. Correct?

A: Correct.

²⁹ Tr. at 2820 and 2854.

³⁰ Tr. at 2882-2883.

³¹ Tr. at 2819 (reading from his deposition).

Q: So would you agree that Mr. Jamieson's additional work was a benefit to the applicant?

A: Insofar as it furthers the applicant's potential to get their permit, yes.³²

Protestants urge that the testimony of the ED's own expert witnesses is very telling and has established unequivocally that—at least in the opinion of the ED's experts—LBEC had failed to meet its burden of proving the Application, if granted, would not cause an exceedance of the 24-hr PM₁₀ Increment at a significant receptor when considering both time and space. Thus, Protestants assert that Mr. Jamieson's actions bridged an essential gap in LBEC's burden of proof. They further insist that a determination that LBEC has shown compliance with the PM₁₀ Increment may only be made with the ED's assistance—*i.e.*, if the ED's modeling is considered—in violation of TEX. WATER CODE § 5.228.

It should be noted that Protestants do not contest the ED's assertion that he did not “intend” to assist Applicant with his own modeling. However, Protestants argue that the ED's “intent” is simply not an issue, because Section 5.228 does not include “intent” as a consideration. According to Protestants, the ED was placed in a difficult situation when the Commission chose, at LBEC's urging, not to remand the Application to technical review for further evaluation when LBEC had failed to meet its burden of proof at the initial evidentiary hearing. This shortcoming left Mr. Jamieson in what he himself admitted was the uncommon position of communicating directly with an applicant's representative while in a contested case proceeding before SOAH.³³ Moreover, Protestants note that Mr. Jamieson found himself in what he described as a unique situation and one where he spent an extraordinary amount of time on LBEC's modeling (between 200 and 300 hours, when 8 to 60 hours is generally the norm).³⁴

³² Tr. at 3099.

³³ Tr. at 2884. Protestants charge they were neither informed nor invited to participate in these communications between these two parties to this proceeding—further demonstrating the impropriety of it. However, they cite no rule or statute that would prohibit communications between some, but not all, parties in a contested case proceeding.

³⁴ ED Ex. 36 at 17; Tr. at 2957-2958. Mr. Jamieson estimated that, in general, an audit takes “8 to 60 man-hours or more.”

Regardless of the ED's intent, Protestants charge that the effect of Mr. Jamieson's actions was to assist LBEC in meeting its burden of proof in the contested case proceeding.

Protestants urge that LBEC is to blame for failing once again to prove through its modeling that the 24-hr PM₁₀ increment would not be violated, even though LBEC was given an extraordinary second attempt by the Commission. For this reason, Protestants maintain the Application must be denied.

ED's Evidence and Argument

The ED insists that Mr. Jamieson's actions merely reflected the actions he needed to take to address the predicted violations of the 24-hr PM₁₀ increment found in LBEC's modeling. These were violations of the PSD Increment that the modeling showed, but which were not caused or contributed to by LBEC sources (*i.e.*, the violations occurred at a time and place where LBEC source emissions were not significant). Mr. Jamieson testified that it was the State's obligation to conduct the modeling, and not LBEC's obligation, because the predicted concentrations associated with the proposed project emissions were not significantly contributing to the predicted 24-hr PM₁₀ increment violations.³⁵ When making the decision to model, Mr. Jamieson explained that he was acting pursuant to EPA's 1990 New Source Review Workshop Manual which states, "[A] source will not be considered to cause or contribute to the violation if its own impact is not significant at any violating receptor at the time of each predicted violation."³⁶ The EPA guidance continues that, when this occurs (namely, when there is a violation, but the source is not causing or contributing to the violation, because the source's emissions are not significant at that time and place), the state may still approve the permit, but it must also "take remedial action through applicable provisions of the state implementation plan to address the predicted violation(s)."

³⁵ Tr. at 2794.

³⁶ Tr. at 2792-2793 (quoting from Ex. ED-4, p. C-52).

The ED argues that the changes Mr. Jamieson implemented in the modeling he performed reflect the specific evaluation that he needed to make to address the predicted violations of the 24-hr PM₁₀ increment where the proposed project emissions were not predicted to significantly contribute to the violations. As such, the ED urges Mr. Jamieson was not intending to correct LBEC's modeling. To further show that Mr. Jamieson's modeling was limited in scope and was not intended to bolster LBEC's case, the ED notes that he did not attempt to evaluate the variation in predicted LBEC source impacts between his modeling and LBEC's.

LBEC's Evidence and Arguments

LBEC agrees with the ED and offers additional arguments in opposition to Protestants' assertions. LBEC urges that its own modeling is sufficient to meet its burden of proof, and makes the following four points:

1. There are two correct modeling analyses in evidence (LBEC's and the ED's) and both show the Application will comply with the PM₁₀ 24-hour increment. LBEC urges that its own modeling results in greater off-site impacts and is thus more conservative than the ED's modeling. For this reason, LBEC argues that if one accepts the ED's modeling as sufficient to prove there is no violation of the PM₁₀ increment, one must also accept that LBEC's modeling proves the same.
2. This case was remanded in order to allow the ED the opportunity to "review" LBEC's Air Dispersion Modeling, so Protestants' position is counter to the Commission's order.
3. The ADMT conducted modeling pursuant to its duties to substantiate the NAAQS or increment violations and to correct it through the State Implementation Plan (SIP). As such, Mr. Jamieson was addressing the state's obligations, rather than LBEC's burden of proof and was not giving LBEC any assistance.
4. Pursuant to Commission Rules, the ED's modeling does not constitute improper assistance to LBEC. Specifically, LBEC notes that 30 TEX. ADMIN. CODE § 80.127(h) states:

Testimony or evidence given in a contested case permit hearing by agency staff regardless of which party called the staff witness or introduced the evidence relating to the documents listed in § 80.118 of this title (relating to Administrative Record) or any analysis, study, or review that the executive director is required by

statute or rule to perform shall not constitute assistance to the permit applicant in meeting its burden of proof.³⁷

According to LBEC, ADMT's Second Modeling Audit resulted from a review of LBEC's PM₁₀ 24-hr increment modeling files, and it is clearly an agency document determined by the ED to be necessary to reflect the technical review of the application. Moreover, LBEC urges that, even if portions of Mr. Jamieson's August 25th modeling audit were focused on demonstrating compliance with the PM₁₀ 24-hr increment solely for SIP purposes, the SIP demonstration is clearly one that the ED is required to perform by statute or rule and thus also comes under the provisions of § 80.127. LBEC notes that Mr. Jamieson reviewed LBEC's modeling, found the output contained predicted values greater than 30 µg/m³ at a time when the proposed project sources were not significant, and determined that it was the state's responsibility to conduct further evaluation of those predictions. As such, LBEC maintains that the ED's modeling cannot constitute assistance to LBEC, because Mr. Jamieson was fulfilling what he believed to be the state's obligation, not LBEC's.

ALJs' Analysis and Recommendation

The ALJs conclude that the ED would violate TEX. WATER CODE § 5.228 if his evidence is allowed to assist LBEC in meeting its burden of proof concerning the PSD increment for PM₁₀. As discussed in more detail below, the ED effectively assisted LBEC when Mr. Jamieson conducted his PM₁₀ modeling when he did not have a regulatory duty to do so. Thus, in accordance with TEX. WATER CODE § 5.228, the ED's modeling evidence should not be considered. The ALJs further conclude that, without such assistance, LBEC failed to demonstrate that a 24-hr PM₁₀ Increment violation would not occur at a significant receptor when considering both time and space. Because of this, LBEC failed to meet all of the requirements to have the Application approved.

³⁷ The administrative record includes, among other things, "any agency document determined by the executive director to be necessary to reflect the administrative and technical review of the application." See 30 TEX ADMIN. CODE § 80.127(h).

After a thorough review of the evidence and arguments made, the ALJs cannot agree with the assertions by both the ED and LBEC that the Commission had a responsibility to address SIP concerns pursuant to EPA regulations and that this responsibility appropriately led Mr. Jamieson to perform his modeling. Both LBEC and the ED urge that Mr. Jamieson's actions were taken pursuant to a regulatory duty, and they argue that his actions could not then, by law, be considered assistance to LBEC in meeting its burden of proof. They cite to a Commission rule establishing that, "actions the ED is required by statute or rule to perform shall not constitute assistance to the permit applicant in meeting its burden of proof." So the seminal question in this inquiry is whether Mr. Jamieson was required to perform the PM₁₀ modeling that ultimately is necessary for LBEC to meet its burden of proof.³⁸

As an initial point, the ALJs note that the question to address is whether Mr. Jamieson was legally required to take action, not whether he intended to assist LBEC. Mr. Jamieson testified that he believed he had a duty to perform SIP modeling, and the ALJs accept his testimony at face value. The ALJs found him and Mr. Hamilton to be credible, fair, and honest witnesses, and for these reasons, their testimony is persuasive when addressing their areas of expertise. But, when making a legal determination such as is presently presented, their opinions are not afforded great weight as they are not legally trained to interpret the applicable regulations. Moreover, they did not have the benefit of following the ADMT's "usual practice" in this case, as it is a unique situation with legal considerations of first impression.

Turning to these legal considerations, perhaps the best way to evaluate the EPA regulations in relation to Mr. Jamieson's actions is to first note under what circumstances the ALJs understand the ED would have had the duty to perform modeling or to otherwise take remedial actions concerning the SIP. In making this determination, EPA regulations control, and provide as follows regarding the "compliance demonstration" required of an applicant:

An applicant for a PSD permit must demonstrate that the proposed source will not cause or contribute to air pollution in violation of any NAAQS or PSD increment.

³⁸ That LBEC's modeling by itself does not satisfy this burden of proof is further discussed below.

This compliance demonstration, for each affected pollutant, must result in one of the following:

- *The proposed new source or modification will not cause a significant ambient impact anywhere.*

...

- *The proposed new source or modification, in conjunction with existing sources, will not cause or contribute to a violation of any NAAQS or PSD increment.*

...

- *The proposed new source or modification, in conjunction with existing sources, will cause or contribute to a violation, but will secure sufficient emissions reductions to offset its adverse air quality impact.*³⁹

LBEC's modeling and attempt at a demonstration fell into the second category noted above: *the proposed new source or modification, in conjunction with existing sources, will not cause or contribute to a violation of any NAAQS or PSD increment.* While LBEC's modeling did indicate a violation of a PSD Increment, EPA guidance relative to this category of demonstration allows as much (and for the permits to still be granted) under certain circumstances:

When a violation of any NAAQS or increment is predicted at one or more receptors in the impact area, the applicant can determine whether the net emissions increase from the proposed source will result in a significant ambient impact at the point (receptor) of each predicted violation, and at the time the violation is predicted to occur. The source will not be considered to cause or contribute to the violation if its own impact is not significant at any violating receptor at the time of each predicted violation. In such a case, the permitting agency, upon verification of the demonstration, may approve the permit. However, the agency must also take remedial action through applicable provisions of the state implementation plan to address the predicted violation(s).⁴⁰

³⁹ Sierra Club Ex. 205 and ED Ex. 4 at C.51 (EPA's New Source Review Workshop Manual) (emphasis in original text).

⁴⁰ Sierra Club Ex. 205 and ED Ex. 4 at C-52.

So once an applicant has made a valid compliance demonstration with acceptable modeling predicting an increment violation in its proposed source's impact area, but where emissions increases from the proposed source are not significant at the time and place of the predicted violation(s), EPA guidance suggests the permit may be approved, but that the permitting agency would then have the duty to address the potential SIP violation(s). It is only after a verified compliance demonstration that the permitting agency has a duty to address the potential SIP demonstration.

In this case, however, Mr. Jamieson did not verify LBEC's compliance demonstration but rather found that LBEC's modeling was deficient. Accordingly, LBEC failed to meet the initial element of the above-noted EPA regulations in that its modeling failed to demonstrate that the proposed source would not cause or contribute to air pollution in violation of the PSD increment. Mr. Jamieson indicated as much, when he concluded in his audit memo that "given the deficiencies listed below, the applicant has not sufficiently demonstrated that a 24-hour PM₁₀ Increment violation would not occur at a significant receptor when considering both time and space."⁴¹ Therefore, because the modeling was deficient, the SIP provisions were not yet triggered. They would only be legally triggered once the ED had satisfied itself that LBEC's modeling was sufficient and demonstrated that any predicted exceedance(s) occurred at times and places where the proposed source emissions were not significant.

Put another way, if Mr. Jamieson had found LBEC's modeling to be acceptable and demonstrative of at least one valid predicted violation occurring at a time and place other than those when LBEC source emissions were significant, then he would have had the duty to proceed and to address the state's SIP concerns. But Mr. Jamieson did not make such a finding. Rather, Mr. Jamieson found LBEC's demonstration to be deficient in that it contained many sources associated with the tenant leasing pad site for POCCA and with the POCCA Dock 1 permit that were not consistent with their respective permit representations. He also found insufficient supporting data for the determination of the worst-case operating scenario combination for the

⁴¹ ED Ex. 51, at 2.

POCCA Dock 2 sources relied on in the LBEC's modeling analyses.⁴² At the point Mr. Jamieson found LBEC's modeling to be deficient, he should have reported as much and left any actions to correct those deficiencies to LBEC, rather than making the demonstration himself.

Mr. Jamieson indicated that the ED's duty was to verify the modeling and to substantiate—or to further evaluate—LBEC's modeled predictions where violations were found.⁴³ As the ALJs understand ADMT's process, Mr. Jamieson first reviewed LBEC's modeling inputs and found deficiencies of such order that he determined LBEC's modeling did not make an acceptable showing of compliance. At this point, it is apparent to the ALJs that the proper conclusion would have been that LBEC did not meet its burden of demonstrating compliance. This conclusion is very clear given Mr. Jamieson's testimony when asked if anyone had sufficiently demonstrated that a 24-hour PM₁₀ increment violation would not occur at a significant receptor when considering both time and place. Mr. Jamieson responded, "[T]he evaluation that I have conducted shows that."⁴⁴ So, given that Mr. Jamieson did not verify LBEC's modeling but instead found it deficient, there was no duty for the ED to then "substantiate" the model's predictions by performing separate modeling for a SIP demonstration. By rejecting LBEC's modeling, the ALJs conclude Mr. Jamieson obviated LBEC's demonstration of a predicted violation and any duty for the Commission to substantiate the NAAQS or increment violation for purposes of the SIP.⁴⁵

But after finding LBEC's modeling was deficient, ADMT mistakenly treated the Application as if LBEC had met its compliance demonstration. Mr. Jamieson then performed his own modeling, ultimately proving that the proposed source would not cause or contribute to a violation of the PSD Increment. In so doing, the ED effectively remedied the errors in LBEC's

⁴² As discussed below, if the Application had been in technical review, the modeling would have been returned to Applicant for correction of deficiencies and for resubmittal to ADMT for further review later.

⁴³ Tr. at 2983.

⁴⁴ Tr. at 2819.

⁴⁵ Taken to its most extreme end, the ALJs assume the ED always has the discretion to model and investigate and monitor Texas air in any way it sees fit. However, this discretion does not appear to rise to the level necessary to trigger an exception to the applicable statute. To so find would render the statute meaningless and would contradict the rules of statutory construction.

modeling and, thus, assisted LBEC in meeting its burden of proof. The ALJs believe this scenario could have been averted had the Application been remanded back to the ED in technical review after the initial hearing where other deficiencies were found in LBEC's modeling.

Moreover, a review of Mr. Jamieson's prefiled testimony from the initial contested case hearing supports the conclusion that ordinarily, once a deficiency is found in an applicant's modeling, ADMT's review stops until the applicant has satisfactorily addressed the concerns by offering additional information or modeling. ADMT's general role is that of auditing and providing guidance for applicants to run their modeling in accordance with the relevant agency practices. In this same testimony, Mr. Jamieson detailed the usual steps for the modeling review performed by ADMT, with the first part being the review of modeling methodology.⁴⁶ If the methodology is questionable and renders the analysis useless, Mr. Jamieson said that ADMT's review ends there. The modeling is considered unacceptable, because the applicant has not made an acceptable demonstration. At that point, the applicant is requested to revise its modeling before the ADMT review continues.⁴⁷

The second part is to review the model inputs for consistency with the modeling report and the permit application. ADMT staff checks all representations against what was actually modeled. If the site and data are available, ADMT checks the data for accuracy. When questioned as to whether LBEC represented all input data correctly as pertaining to its initial modeling, Mr. Jamieson stated that, "[A]ny technical deficiencies in the modeling were satisfactorily addressed by the applicant through additional submittals of modeling information."⁴⁸ His comments establish that, if incorrect data is found at this point, an applicant is requested to provide additional submittals.

Finally, the third part of the review is to determine whether the source characterizations are representative and/or appropriate. If ADMT determines that the source characterizations are

⁴⁶ Ex. ED-36 at 7.

⁴⁷ Ex. ED-36 at 8.

⁴⁸ Tr. at 2957 (reading from deposition).

not representative, they see whether the representations were made in a conservative manner, such that predicted concentrations should overestimate what actual ambient air concentrations would be. Similar to the process explained above for the second part, when asked whether LBEC had any deficiencies in the source characterizations or representations in its initial modeling, Mr. Jamieson stated that any deficiencies in the modeling were addressed by LBEC through additional submittals of modeling information.⁴⁹

Thus, in the ordinary course of review, it does not appear that ADMT performs the modeling when an applicant's Air Quality Analysis is found to have deficiencies.⁵⁰ Instead, Mr. Jamieson indicated that the deficiencies are revealed and applicants are requested to either address the deficiencies through additional submittals of modeling information or to revise their modeling. This is consistent with Mr. Jamieson's discussion of ADMT's role in air permitting at the Commission, where he notes that ADMT performs modeling for small business applicants and agency rule development:

The role of the ADMT is to provide technical support regarding air dispersion modeling in support of the New Source Review (NSR) permit program. The ADMT provides guidance to applicants and the APD permit reviewers regarding air dispersion modeling practices and procedures, audits modeling analyses in support of NSR permits, and performs modeling analyses for Small Business applicants and agency rule development. The ADMT also provides modeling services for the TCEQ Office of Compliance and Enforcement (OCE).⁵¹

It is also consistent with Mr. Jamieson's testimony during the remand hearing that the present case is unique, given that the Application remained in a contested case proceeding before SOAH while additional technical review was performed. This was the first time he performed the evaluations he conducted while a case was in hearing.⁵² Mr. Jamieson explained that, in the

⁴⁹ Ex. ED-36 at 8.

⁵⁰ The ALJs note that, during the first ADMT modeling, it appears from review of the Modeling Audit Memo that both applicant and ADMT ran modeling when some source parameters were found to be incorrect. The ALJs note this to state that they do not fully understand when and why ADMT conducts its own modeling. However, so long as ADMT's actions do not occur while the case is in a contested case hearing, ADMT's actions would not violate Section 5.228 of the Water Code. See LBEC Ex. 501 at 00043.

⁵¹ Ex. ED-36 at 5.

⁵² Tr. at 2835.

present situation, the line of communication was limited when he might need to ask for LBEC's assistance. Given this, the ALJs understand that, in following the above procedures in the remand portion of the contested case, Mr. Jamieson felt constrained in his ability to communicate as freely as when an application is in technical review. But, when Mr. Jamieson was faced with the inability to report the deficiencies and have LBEC resubmit its modeling or additional modeling information in accordance with ADMT's usual practice, the solution cannot legally be for ADMT to then perform the modeling, correct any errors, and thus perfect LBEC's case. Such would be a violation of the Texas Legislature's directive that the ED not assist a permit applicant in meeting its burden proof while a matter is in a *contested case hearing before SOAH*. And, it would be a strange result indeed if the inherent communication difficulty resulting from the fact that the case remained in a contested case hearing before SOAH, rather than being remanded to the ED for further technical review, was used as a justification to avoid the intent of the statute prohibiting such assistance during a contested case.

Had this matter been remanded to the ED for proper technical review, as was requested by Protestants, the ED would have been better situated to perform his regulatory duties in the ordinary course of action. LBEC could have made the changes suggested by Mr. Jamieson to its modeling and then resubmitted the modeling to the ED for approval while the Application remained in technical review and not before SOAH. At that time, the ED would not have been under the statutory constraints of TEX. WATER CODE § 5.228. However, as has been the repeated situation in this case, LBEC sought to expedite the matter and argued against remanding the case to the ED for formal technical review. With its actions and objections, LBEC has led to this situation where the statute will be violated if the ED's modeling is considered and relied upon to meet LBEC's burden of proof in this case. So, the issue then becomes: is LBEC's modeling, by itself, sufficient to meet its burden of proof? The ALJs now turn to that question.

LBEC urges that its remand modeling is more conservative than the ED's and, as such, forms an acceptable basis for a finding that the Application will not cause or contribute to a PSD Increment violation. The ALJs do not find that the greater weight of evidence supports LBEC's contention. In reaching this conclusion, the ALJs give great weight to Mr. Jamieson's determination and testimony. As with other highly technical issues, the ALJs are constrained to

rely on the testimony of experts. It is evident that ADMT took great care with the remanded modeling issues, as Mr. Jamieson testified that he spent hundreds of hours on this case, an unusually high amount of time by a large order. In addition to the time he spent, the ALJs find Mr. Jamieson to be credible and generally neutral in his determinations. Moreover, the ALJs are confident of his abilities given his breadth of experience with the Commission. Mr. Jamieson found that, because of deficiencies in LBEC's modeling, he could not conclude from LBEC's efforts that there would not be a violation of the PM₁₀ 24-hr increment.

Mr. Jamieson's conclusions are reflected in numerous places:

- In his ADMT memo, Mr. Jamieson stated "given the deficiencies listed below, the applicant has not sufficiently demonstrated that a 24-hour PM₁₀ Increment violation would not occur at a significant receptor when considering both time and space."⁵³
- In response to a question at the remand hearing asking whether the applicant had sufficiently shown that there was no violation of the 24-hour PM₁₀ PSD increment, Mr. Jamieson testified, "Without making any of the updates that I made and with the inconsistencies and deficiencies that I saw, I would say, no, that it was not a sufficient demonstration."⁵⁴
- In his deposition prior to the remand hearing, Mr. Jamieson was asked whether anyone had sufficiently demonstrated that a 24-hour PM₁₀ increment violation would not occur at a significant receptor when considering both time and space. He testified, "The evaluation that I have conducted shows that."⁵⁵

ED witness Randy Hamilton testified similarly, indicating that Mr. Jamieson's additional steps "corrected the problems in the applicant's modeling" and "was a necessary part of getting the executive director's approval of the proposed permit."⁵⁶ Thus, it is clear from the ED's expert witnesses that LBEC's modeling on remand was fatally deficient and that the application could not have been granted based just on it—without the ED's corrections.

⁵³ ED Ex. 51, at 2.

⁵⁴ Tr. at 2882-2883.

⁵⁵ Tr. at 2819;

⁵⁶ Tr at 3099.

The number of problems found by Mr. Jamieson are significant, including incorrectly locating emission sources, mischaracterizing emission sources, improperly grouping emission sources, and failing to apply wind scalars. Although the parties dispute how to correctly quantify Mr. Jamieson's changes/corrections, it is clear that, in number, there were more than 20 modifications made by him.⁵⁷ On cross-examination by LBEC's counsel, Mr. Jamieson conceded that some of his changes may not have been needed or were based upon inaccurate assumptions.⁵⁸ However, LBEC only addressed a few of the changes and did not refute the vast majority of his modifications.

Given the deficiencies shown at the original hearing, which ultimately led to LBEC's expert conceding on the last day of the original hearing that he did not know even then if the modeling was accurate, the ALJs do not have inherent confidence in the modeling performed by LBEC. And, LBEC has not shown that Mr. Jamieson's criticisms of its modeling are wholly unjustified. In light of the ED's experts' testimony, the ALJs cannot recommend a finding that LBEC has sufficiently made its compliance demonstration in accordance with EPA guidance.⁵⁹

Moreover, the ALJs note that the mere fact that LBEC's modeling may be "more conservative" (in some of its assumptions) than the ED's does not prove it is either accurate or acceptable for the compliance demonstration.⁶⁰ Conservatism in the methodology is not sufficient if the modeling is based upon incorrect data. Moreover, as noted by Mr. Jamieson, emissions rates or amounts are not the only concern with modeling.⁶¹ He explained:

⁵⁷ Protestants attempted to quantify all of the changes in their cross-examination of Mr. Jamieson, and they tallied 55 changes. Tr. at 2879. However, whether all of these were in fact corrections, or should have been quantified separately, is disputable. Either way, it is clear from Mr. Jamieson's audit memo and testimony that the changes were of a significant number. ED Ex. 51; Tr. at 2855 – 2879.

⁵⁸ Tr. at 2946-2947 (Mr. Jamieson concedes that his location of certain low level emission points on the Valero property were not consistent with Valero pad site plan documents on file with the TCEQ).

⁵⁹ Sierra Club Ex. 205 at C.51. (EPA New Source Review Workshop Manual)

⁶⁰ The ALJs do not address the modeling offered by Protestants because they do not find that it properly followed federal and state modeling guidance (for example, in regard to classifying secondary sources of emissions versus emissions from the stationary source).

⁶¹ Tr. at 2826.

“I don’t think you could just purely look at a different set of emission rates and come to some conclusion on the potential impacts from those emission rates. It’s the evaluation of those emissions through a modeling exercise that you could get potential impacts or predictions to consider with your evaluation.”⁶²

As examples, Mr. Jamieson agreed that the locations of sources and meteorological data can change the ultimate impacts predicted by air modeling. So, while the ALJs can agree that more conservative modeling is a positive, they cannot agree that more conservative—but deficient—modeling proves anything, and is somehow better than less conservative modeling without deficiencies.⁶³ Ultimately, the modeling needs to be based upon accurate data and include appropriate assumptions, and the resulting emissions impacts are what is significant.

Similarly, the crux of the issue is not decided by simply looking at LBEC’s modeling to determine whether any PSD Increment violations occurred on dates and at receptors where LBEC was significant. This is the proper analysis—but it is only a reliable analysis if the modeling underlying it is based upon correct input data. That was the heart of Mr. Jamieson’s concerns in his audit memo—not that LBEC’s modeling didn’t analyze the dates and times properly, but that the input data and assumptions in the modeling were simply inaccurate or incorrect. While conservatism may help offset incorrect assumptions, it is an insufficient basis for correcting incorrect data, such as emission point locations and the numbers of sources.

In sum, then, the ALJs agree with LBEC’s assertion that the ED is required to “verify” an applicant’s modeling. And, Mr. Jamieson attempted to do this, but found that he could not, because LBEC’s modeling was deficient. To remedy his concerns, Mr. Jamieson performed his own modeling. This modeling was necessary to assure the ED that state and federal air quality standards would not be violated if the application were granted. While understanding the ED’s actions and without making a finding that Mr. Jamieson intended to assist LBEC, the ALJs are constrained by the statute and the particular facts of this case. In considering those, the ALJs

⁶² Tr. at 2797.

⁶³ For similar reason (that there is no modeling proving LBEC’s assertions of less impacts), the ALJs cannot agree with LBEC that its modeling is sufficient to meet its burden of proof because neither it nor the ED attempted to analyze in more detail whether some of the sources modeled were not increment-consuming and, thus, could have been excluded from the modeling analysis.

find that LBEC's modeling is, by itself, not sufficient to meet LBEC's burden of proving that its facility would not cause or contribute to a violation of the PM₁₀ increment. Moreover, it would violate the law to consider the ED's modeling to overcome this deficiency in LBEC's modeling. As such, the ALJs cannot, at this time and on the evidence in the record, make a finding that LBEC's proposed facility will not cause or contribute to a condition of air pollution in violation of the applicable regulations.

c. Can POCCA Handle the Materials Necessary for LBEC? If Not, Does this Prevent the Application from Being Granted?

Protestants cite to concerns raised by the ALJs in the original PFD and claim that LBEC's application is deficient because POCCA's existing permits are not sufficient to allow for the two potential material-handling options modeled by LBEC. In the original PFD, the ALJs noted that LBEC's proposed facility is expected to use approximately 4 million tons of pet coke and 3.2 million tons of limestone annually to operate the plant. However, POCCA's Bulk Dock #1 permit is limited in regard to pet coke, to 578,741 tons per year for loading activities and 75,858 tons per year for unloading activities.⁶⁴ Similarly, Bulk Dock #1's permit caps the unloading of metallic minerals and ores (which would include limestone) at 543,734 tons per year.⁶⁵ Bulk Dock #2 has permit limits of 3.15 million tons per year for loading/unloading of pet coke and 500,000 tons per year for limestone. Combined, Bulk Dock #1 and #2 do not have sufficient permit limits to handle the 4 million tons per year of pet coke or 3.2 million tons per year of limestone expected to be used by LBEC. This does not appear to be disputed, as even POCCA deputy port director Frank Brogan—when questioned on direct by LBEC—testified that POCCA would possibly be required to amend its permits to handle LBEC's needed materials.⁶⁶ Further, in closing briefing, LBEC concedes this point—stating “Applicant has consistently acknowledged and, indeed, argued that the PCCA will likely have to obtain additional or amended air permits in order to handle the materials required by the LBEC.”⁶⁷

⁶⁴ LBEC Ex. 802, at 4.

⁶⁵ LBEC Ex. 802, at 4.

⁶⁶ LBEC Ex. 800, at 10.

⁶⁷ LBEC's *Remand Response to Closing Arguments*, at 11.

Since it is clear that POCCA's permits will have to be amended (or new permits obtained) for it to conduct the necessary material-handling for LBEC, the next question is whether this is significant. Protestants argue it is, and contend that the application should not be granted when LBEC's modeling and the operation of the proposed facility depend on third parties being able to obtain necessary permits or permit amendments. Protestants cite to the following language by the ALJs in the original PFD:

Yet most damaging to LBEC's secondary emissions evaluation is the lack of proof that the POCCA docks, under their current permits, can legally process the more than 7 million tons per year of pet coke and limestone necessary for LBEC's Facility. Without this vital piece of information, LBEC's analysis must fail.⁶⁸

Because LBEC has still not shown that the POCCA docks, under their current permits, can handle the needed materials for LBEC, Protestants argue that the outcome is the same: "LBEC's analysis must fail."

In citing to the ALJs' prior discussion, however, the Protestants miss a key point. Namely, the ALJs' comments came in the context of LBEC attempting to rely on POCCA's permit limits for its secondary emissions analysis. Essentially, instead of actually modeling the material-handling necessary to get materials to its facility, LBEC just pointed to the POCCA permit limits and modeled based upon those permit limits. As the ALJs pointed out in the original PFD, that effort was inadequate, especially because the POCCA permits were not able to handle the materials necessary for LBEC.

This same concern by the ALJs does not exist here, because LBEC has now modeled the actual expected emissions for material-handling operations on POCCA's site—rather than simply relying on POCCA's permit limits. LBEC's modeling specifically details two material-handling options for POCCA to provide the necessary materials. Its modeling (as well as the ED's modeling) is based upon the full amount of needed materials and is not limited to POCCA's permit limits. Thus, the modeling uses the assumption that POCCA's permits will be

⁶⁸ PFD, at 42.

amended to allow for the needed material handling. So, from a modeling standpoint, LBEC has adequately addressed the ALJs' concerns from the PFD. But, the question still remains: Can LBEC meet its burden of proof by relying on a material-handling scenario that is currently not legally permitted (because Bulk Dock permit amendments are needed). The ALJs believe it can.

At the heart of the Clean Air Act's requirements, and EPA and TCEQ guidance, is the issue of potential air quality impacts from a new source. The role of modeling is to determine worst-case scenarios and impacts to air quality. It is not intended to ensure that every loose end and contingency is resolved prior to issuance of a permit. For example, applicants often may have to obtain contracts for materials, contracts with vendors, and non-air-related permits from regulatory entities (such as wastewater permits or other regulatory permits) before they can begin operating. In the same way, it is not unusual for a contractor or vendor of the applicant to have to get its necessary authorizations before supplying materials or services to an applicant. Provided that the applicant has properly modeled the expected worst-case scenarios, then the ALJs do not find any legal basis for requiring the applicant to also resolve all potential contingencies necessary for the operation of the facility before the permit can be issued. And, Protestants have cited no legal requirement that POCCA would have to have its necessary permits in hand before LBEC could model potential emissions from POCCA material-handling operations or rely on such modeling to obtain LBEC's requested permits.

As LBEC correctly notes, POCCA will be allowed to handle only those amounts it is legally authorized to handle by TCEQ. This means that LBEC will simply not operate to the fullest capacity envisioned under its worst case modeling, or will have to obtain its necessary materials from another source. This latter possibility is discussed below, where the ALJs address whether LBEC should be required to utilize the material-handling options it has modeled. But, in regard to the first possibility—that LBEC will not be able to operate to full capacity until POCCA can handle all of its material needs—the ALJs find no harm.

d. Is LBEC's Failure to Offer a Definitive Plan for its Off-Site Material-Handling Needs a Fatal Defect in its Application?

Protestants also complain that LBEC's material-handling options are purely hypothetical, because LBEC has not committed to actually using either one of them. Protestants review the history of LBEC's different material handling options—starting with the application that indicated the material handling would be done by LBTC (an affiliate of LBEC). Then, when no modeling had been done for such handling, LBEC changed course and indicated that POCCA would provide the necessary off-site material-handling under its existing permits. Because it contended that POCCA could handle the materials under its existing permits, LBEC did not conduct modeling for the proposed material-handling by POCCA. However, when the evidence failed to substantiate that the POCCA permit limits were sufficiently modeled, POCCA amended its permits after issuance of the PFD but before the first Commission Agenda. After the matter was remanded, LBEC then modeled the two specific material-handling options it now presents on remand. POCCA's permits still cannot handle all of the materials needed by LBEC, but at least LBEC's modeled scenarios account for all of the needed materials (even if POCCA's permit(s) would have to be amended to allow for this to occur). But, given the previously-shifting nature of the off-site material-handling, coupled with the fact that there is no obligation on LBEC to use either of the options it has now modeled, Protestants complain that LBEC's modeling does not demonstrate compliance, because it is based purely on hypothetical scenarios.

Protestants note that TCEQ's rules require that an "applicant must provide *in its Application* information which *demonstrates* that emissions from the facility *will meet* all of the enumerated requirements, including all applicable requirements concerning PSD review."⁶⁹ The TCEQ's PSD requirements also require compliance with 40 C.F.R. 52.21(k), which mandates that an applicant "shall demonstrate" that emissions from the source along with secondary emissions "would not cause or contribute to air pollution" in violation of any NAAQS or PSD increment.⁷⁰ Without any definitive statement or commitment from LBEC as to how it will handle its off-site material-handling needs, Protestants argue that LBEC cannot demonstrate

⁶⁹ EDF's *Closing Brief on Remand*, at 7 (emphasis in original).

⁷⁰ EDF's *Closing Brief on Remand*, at 7-8 [citing 30 TEX. ADMIN. CODE 116.160; 40 C.F.R. 52.21(k)].

compliance. At most, they argue, LBEC has shown that it *could* meet the applicable requirements, not that it *will* meet those requirements (as required by the rules). They argue that LBEC must commit to how it intends to address these off-site material-handling needs before it can be shown to have made the necessary demonstrations required by state and federal law. Merely showing that it is hypothetically possible to comply is not enough.

In response, neither LBEC nor the ED offers any compelling argument. LBEC merely states that this issue was not one of the issues referred by the Commission. However, the ALJs strongly disagree. In reviewing the modeling and expected emissions, the location of the emissions sources is a critical concern. As ED witness Daniel Jamison testified, the location of the emissions source can have an impact on the predicted modeling results.⁷¹ Thus, in analyzing LBEC's modeling, it is critical to evaluate whether the modeling accurately predicts expected emissions sufficiently to give assurance that air quality standards will be met if the requested permits are issued. In this regard, there must be some assurance that the modeled emissions sources are, in fact, the actual expected sources of emissions if the facility is built. Otherwise, applicants could always just determine what source locations or operational methods result in the lowest emissions levels, put them in the application, and then build something totally different from what they modeled. This would be an absurd result and, of course, is not allowed by the applicable statutes and rules, because applicants are ordinarily bound by the representations they make in their permit applications. However, in this case, LBEC never made any representations in its permit application about its off-site material handling needs and this was one of the defects the ALJs found originally at the hearing.

The question now is whether LBEC's modeling of secondary emissions from off-site material handling is reliable if, in fact, LBEC is under no obligation to use the actual options it modeled. Unless LBEC is somehow constrained to use its modeled options, or options that have similar emissions impacts, the ALJs find that such modeling would not be reliable for the purpose of showing that LBEC's facility will comply with all applicable air quality standards. As Protestants correctly note, the applicable rules require that an applicant show that its facility

⁷¹ Tr. at 2826.

will meet all of the enumerated requirements, including all applicable requirements concerning PSD review.⁷² If an applicant can merely offer options for how it is possible to meet the requirements—without any commitment by the applicant to actually use the proposed options—then the applicant has not shown that it “will meet” the requirements; it has merely shown that it is theoretically possible to meet the requirements.

Similarly, a showing that there are hypothetical ways to not cause or contribute to violations of the NAAQS or PSD increment is not the same as showing that emissions from the source along with secondary emissions “would not cause or contribute to air pollution” in violation of any NAAQS or PSD increment.⁷³ To make the necessary showing, an applicant has to be bound to the operations it has modeled. Otherwise, any showing is merely illusory. So, in order to give credence to LBEC’s modeling, the ALJs find that LBEC must be bound to use the material-handling options that it has modeled, or options that have emissions impacts that are no worse than the modeled options. Otherwise, LBEC’s modeling shows only that it is possible to comply with applicable air quality standards. This is less than the required showing that the facility will meet all of the enumerated requirements, including all applicable requirements concerning PSD review, or that emissions from the source along with secondary emissions “would not cause or contribute to air pollution” in violation of any NAAQS or PSD increment.⁷⁴

However, in considering how to evaluate the impact of secondary emissions, the ALJs do not find that LBEC’s lack of commitment to an off-site material-handling option is a fatal defect or a ground for denying the requested permits. Rather, this concern may be remedied by the inclusion of an ordering provision mandating treatment of the two off-site material-handling options as if they were included in the Application.⁷⁵ This would generally require LBEC to use one of the options presented but still allow changes under the usual processes with the ED’s

⁷² EDF’s *Closing Brief on Remand*, at 7.

⁷³ EDF’s *Closing Brief on Remand*, at 7-8 [citing 30 TEX. ADMIN. CODE 116.160; 40 C.F.R. 52.21(k)].

⁷⁴ As required by 30 TEX. ADMIN. CODE 116.160; 40 C.F.R. 52.21(k).

⁷⁵ The language proposed by the ALJs is: “LBEC’s material handling options are considered as if they were included in the Application and LBEC is responsible for either building material handling operations in accordance with one of the two proposals or for obtaining the usual Commission approval when changes to an approved application or a pre-construction permit are made at the time of construction.”

approval and confirmation that any changes would not cause or contribute to air pollution in violation of any NAAQS or PSD increment.⁷⁶ If the Commission includes such an ordering provision, then the ALJs find that this concern is resolved.

e. Is LBEC Required to Model and Demonstrate Compliance with Newly-Promulgated NAAQS Standards for SO₂ and NO₂?

Protestants complain that LBEC has not demonstrated compliance with the newly-promulgated NAAQS standards for SO₂ and NO₂. These new standards were promulgated by EPA after the original hearing on the merits. Specifically, EPA made revisions to the NAAQS for NO₂, effective April 12, 2010, and to the NAAQS for SO₂, effective August 23, 2010. These revisions implement new one-hour standards to supplement or replace the 24-hour or annual standards previously existing. Protestants argue that these new standards take effect immediately and that LBEC is required to demonstrate compliance with them before the PSD permit can be issued in this case. Because it is undisputed that LBEC has not made any modeling demonstration to show compliance with the new standards, Protestants argue that its application fails and the TCEQ cannot issue the requested PSD permit to it.

In response, LBEC notes that the new standards were published in the Federal Register after the original PFD was issued, but before the Commission's Interim Order remanding this case to SOAH. LBEC points out that, despite being aware of the issue, the Commission chose not to remand that concern to the ALJs for additional consideration or evidence. Further, LBEC argues that neither EPA nor the TCEQ have yet developed rules implementing these new standards, including any identifying the significant impact level that would be used in evaluating 1-hour NO₂ and SO₂ concentrations. Absent such guidance, LBEC contends that there is no basis for a meaningful review of compliance with these standards.

At this point, the ALJs decline to address this concern in any detail. The issue was raised for the first time on remand, and was not part of the matters referred by the Commission. The

⁷⁶ The ALJs are uncertain of all of the particularities of this process and request that the ED provide this information in its exceptions to assist the Commission in its consideration of this issue.

new standards did not go into effect until after the original hearing and could not have been addressed by LBEC in its application. Given that there are no clear rules or implementation guidance for the new standards, it is unclear what methodology may be used by LBEC for showing compliance. But, even if the methodology were clear, the ALJs are not persuaded that LBEC is required to make such a showing now in the context of this remand hearing, where the issues have been limited by the Commission and the original PFD has issued. Because the parties have not briefed this matter extensively (the ED has not taken a position on it), and because it was not a matter the Commission referred, the ALJs decline to address it at this time. Rather, they simply make the Commission aware of the concern.

If the Commission believes that the law requires an applicant to demonstrate compliance with all applicable NAAQS standards at the time the permit issues, then LBEC has not done this, because it has not addressed these new NO₂ and SO₂ standards, nor demonstrated compliance with them. But, if the Commission believes that an applicant is not required to demonstrate compliance with these standards that went into effect after the application was filed and the original hearing was completed, then these new standards do not present a basis for denying the permit.

4. The ALJs' Conclusion

After considering the evidence and arguments, the ALJs find that there will be an increase in PM from off-site material handling sources above what was originally modeled by LBEC. As to the ultimate conclusions from the impacts analysis based upon these PM emissions from off-site material handling sources and in consideration of an additional review of modeling performed by LBEC, the ALJs find that offsite material handling should be modeled as secondary sources and that the two material handling options should be treated as included in the Application. The ALJs further find LBEC's modeling is deficient for proving compliance with the 24-hr PM₁₀ Increment and that the ED's modeling may not be properly considered for the purpose of meeting LBEC's burden of proof.

B. The Ability of Applicant to Design and Install a Conveyor System that will not be a Source of Emissions.

LBEC proposes to have pet coke and limestone transported onto the site by means of a conveyor that, for all of its length on-site, will be entirely enclosed within a tube. LBEC witness David Cabe testified to the proposed design and functioning of this enclosed conveyor system. He testified that the conveyor will connect to off-site material-handling conveyers or other systems and will transport pet coke and limestone from the property boundary to the material transfer tower that will feed the pet coke silos and limestone bunkers.⁷⁷ By having the entire conveyor enclosed, emissions will be eliminated—except for those that occur in the material transfer tower and will be emitted through the pet coke silo baghouses.⁷⁸ These baghouse emissions were already accounted for in LBEC's original emissions modeling.

The ED's technical staff reviewed this proposed conveyor system and found that it is feasible and would not be a source of emissions. Mr. Hamilton testified that he has looked at these types of conveyers before. Moreover, he consulted other technical staff with the ED. They were in agreement that this type of conveyor resolves emissions problems with this aspect of material transport. He noted that emissions from conveyers are typically the result of wind blowing on the materials, causing them to become airborne. Because the use of an enclosed tube blocks the wind, it prevents the materials from being blown airborne. And, as Mr. Hamilton testified, "by preventing the wind from blowing on the material . . . that will eliminate that particular source of emissions."⁷⁹ So, both LBEC and the ED contend that the clear evidence indicates that LBEC's proposed enclosed tube conveyor system will not be a source of emissions, and that LBEC has the ability to properly design and install this system.

No party has presented any evidence disputing or controverting the testimony from Mr. Cabe or Mr. Hamilton. And, in fact, no party except TCACC even addresses this issue in its briefing. TCACC contends that LBEC has not met its burden of proof on this issue because it

⁷⁷ LBEC Ex. 600, at 28. LBEC Ex. 603 is a schematic for the proposed conveyor system.

⁷⁸ LBEC Ex. 600, at 30.

⁷⁹ Tr. at 3036-3037.

has not included blueprints for the proposed conveyer system. LBEC and the ED both respond by contending that there is no requirement for “blueprints” and the testimony and schematic drawing offered by LBEC are sufficient to establish its ability to actually design and install a system consistent with its representations. The ALJs agree with LBEC and the ED.

TCACC provides no argument on this issue—merely its bare assertion that no blueprints have been provided for the enclosed conveyer. However, the ALJs are not aware of any requirement for blueprints to make the showing regarding LBEC’s proposed conveyer system. Certainly, nothing in the TCEQ’s rules requires it. In 30 TEX. ADMIN. CODE § 116.111(a), the Commission has listed the requirements for a permit application. Nowhere in that rule is there any specification for blueprints or similar documents. In fact, in regard to the source facility itself, the rule even provides that additional engineering data may be required *after a permit has been issued* in order to demonstrate further that the proposed facility will achieve the performance specified in the permit application.⁸⁰ Thus, the rule anticipates that not all engineering data must be provided prior to the issuance of the permit.

There is nothing unusually complex about an enclosed conveyer system and Mr. Hamilton indicated he had reviewed such systems before. The Commission’s only inquiry in remanding this issue was whether LBEC could install a system that would not be a source of emissions, and all of the evidence in the record indicates the answer to this is “yes”—through the use of an enclosed conveyer as demonstrated in Mr. Cabe’s testimony and the schematic drawing. As such, the ALJs simply find no basis for TCACC’s concern and, instead, find the evidence clearly shows that LBEC has the ability to design and install a conveyer system that will not be a source of emissions.

Moreover, LBEC has agreed to have the requirement for an enclosed conveyer system be included in the permit if there are any concerns about its intended use, or any contention that it does not intend to actually use such a system to ensure that there are no emissions from the on-site material-handling conveyers. The ALJs find that it would be appropriate to include the

⁸⁰ 30 TEX. ADMIN. CODE § 116.111(a)(2)(G).

requirement for an enclosed conveyer system in the permit, because such is necessary to ensure that the emissions from the operation of the facility will not contravene applicable standards. Therefore, the ALJs find that LBEC has met its burden of proof on this issue and that its proposed on-site conveyer system should be included in the permit requirements.

C. The Ability of Applicant to Design and Install a System for Ash Loading into Trucks that will not be a Source of Emissions.

As with the enclosed conveyer system, LBEC has also proposed an ash loading system that it contends will not be a source of emissions. It is undisputed that fly ash and bottom ash will be generated by LBEC's CFB boilers. This ash will be loaded into trucks for off-site transport. To accomplish this in a manner that will not be a source of emissions, LBEC witness David Cabe testified that the facility's ash loading systems will use a loading spout that will create a seal to ensure no leakage of ash during truck loading from the ash silos. The loading spout will have a fabric shroud that will pull dust and ash-laden air back into the silos. This air is then exhausted through the silo baghouses, and these baghouse emissions have been modeled previously with LBEC's original application.

Just as with LBEC's proposal to use enclosed conveyers, no party has presented any evidence disputing or controverting the testimony from Mr. Cabe or Mr. Hamilton that the ash loading system proposed by LBEC will not be a source of emissions. And, as before, no party except TCACC addresses this issue in its briefing, and TCACC's issue is the same: Namely, TCACC contends that LBEC is required to offer blueprints for its proposed ash loading system. Rather than repeating their prior discussion on this issue, the ALJs simply point out that there is no requirement for LBEC to submit blueprints for its ash loading system. Its description of the ash-loading system in its testimony—coupled with its agreement to include a permit term requiring it to use the proposed self-sealing ash-loading spout—is sufficient to show that LBEC has the ability to design and install an ash-loading system that will not be a source of emissions. Accordingly, the ALJs find that LBEC has met its burden of proof on this issue and that its proposed self-sealing spout for ash-loading should be included in the permit requirements.

D. Whether the Modeling Inputs, with Respect to Moisture Content, for the Port of Corpus Christi Authority Facilities are Proper?

In its original modeling, LBEC used a 4.8% moisture content for the materials handled by POCCA. In the PFD, the ALJs noted that this was improper and could skew the results of LBEC's modeling, because POCCA was authorized to handle materials with a moisture content much lower, such as 2%. And, the lower the moisture content, the higher the likelihood the materials could become airborne particulate matter. LBEC justified this by arguing that 4.8% represented expected actual emissions. But, because there was no operational data, the 4.8% value used in the modeling was not, in fact, "actual" data. When no actual operating data is available, the Commission's guidance allows an applicant to use permit allowable emission rates. So, in the original PFD, the ALJs noted that LBEC should have used the allowable moisture content under POCCA's permit for its modeling. At that time, POCCA was allowed to handle materials with moisture content much lower than 4.8%.

Since the issuance of the original PFD, POCCA has amended the permit for its Bulk Dock #2. Now, that permit requires that all materials handled "shall have a minimum moisture content of 4.8 percent."⁸¹ Accordingly, LBEC's modeling that uses a 4.8% moisture content for POCCA Bulk Dock #2 emissions is now consistent with the Commission's modeling guidance, because it uses the permit allowable rate. Given this, the ALJs' prior concerns have been remedied. Therefore, the ALJs conclude that LBEC's modeling inputs with respect to moisture content for the POCCA facilities are proper.

E. What are the Proper BACT Emission Limits for Total Particulate Matter (PM/PM₁₀) and Mercury?

In the original PFD, the ALJs found that LBEC's proposed emission limits for total PM/PM₁₀ and mercury were not actually BACT. Rather, after considering other recent permits, the ALJs found that the BACT emission limit for total PM/PM₁₀ should be 0.025 lb/MMBtu. Similarly, the ALJs concluded that the BACT emission limit for mercury, using a CFB boiler

⁸¹ LBEC Ex. 803; *also* Tr. at 3050.

and with pet coke as the fuel source (both of which were similar to other recent permits), should be 6.0×10^{-7} lb/MMBtu. Therefore, the ALJs recommended that the permit be revised to reflect these emission limits and LBEC be required to meet them. On remand, the parties have presented additional evidence and arguments regarding the proposed limits, and LBEC has agreed to lower the limits in some regards. The evidence and arguments are discussed below regarding each pollutant.

1. Total PM/PM₁₀

On remand, LBEC has advised that it would accept the lowering of the total PM/PM₁₀ limit to 0.025 lb/MMBtu as previously recommended by the ALJs. This is the total PM/PM₁₀ limit adopted in numerous recent permits issued by the Commission. Based on this, ED expert Randy Hamilton testified that he supports this limit as well.

As they did at the original hearing, Protestants argue that the total PM/PM₁₀ limit should be lower than 0.025 lb/MMBtu. Sierra Club argues that the BACT limit for total PM/PM₁₀ should be between 0.012 and 0.016 lb/MMBtu, based upon permits issued to two other facilities using CFB boilers. In particular, Virginia Electric and Power Company (VEPCO) received a permit in June 2008 for its two CFB boilers, and that permit set a total PM limit of 0.012 lb/MMBtu (on a 3-hour average).⁸² Similarly, Sierra Club expert Dr. Sahu testified regarding a permit for the Spurlock power plant in Kentucky that had a total PM limit of 0.012 lb/MMBtu.⁸³ Sierra Club also notes that the ALJs in the White Stallion case recommended a total PM limit of 0.016 lb/MMBtu for CFB boilers burning pet coke, based upon a vendor guarantee.⁸⁴

Finally, Sierra Club contends that even LBEC's own evidence in this case would support the total PM limit being set at 0.016 lb/MMBtu. Specifically, LBEC witness Shannon DiSorbo

⁸² Sierra Club Ex. 366; Tr. at 3118.

⁸³ Tr. at 2460.

⁸⁴ Tr. at 2461 (regarding vendor guarantee); See also White Stallion PFD, at 74. (Attachment B to Sierra Club's *Closing Brief on Remand*).

testified that the proposed total PM limit was based on the sum of the filterable PM and H₂SO₄.⁸⁵ In this case, the current draft permit limit for filterable PM is 0.011 lb/MMBtu and the ALJs' recommended H₂SO₄ limit is 0.0045 lb/MMBtu. Added together, these total 0.0155 lb/MMBtu. Thus, Sierra Club argues that this further shows that the total PM limit should be no higher than 0.016 lb/MMBtu. EDF also argues that the total PM limit should be lower than 0.025 lb/MMBtu, relying on Dr. Sahu's testimony regarding other permits.

The ALJs find little merit to the arguments raised by Protestants on remand, as they are essentially the same arguments raised during the initial hearing and mostly discounted by the ALJs in the original PFD. The VEPCO and Spurlock permits were considered by the ALJs in the initial hearing and were rejected (along with other permits cited by Protestants) for comparison purposes because they did not involve facilities burning solely pet coke and/or using CFB boilers. As noted in the original PFD, pet coke is generally expected to have higher PM emissions than coal. Thus, facilities burning coal would be expected to have lower permitted PM limits than a facility burning only pet coke.

Ultimately, the ALJs conclude that the most appropriate basis for recommending a total PM limit in this case is the Commission's recent decision in the White Stallion case. As Sierra Club points out, the ALJs in that case relied on a vendor guarantee made to the applicant, White Stallion, that would ensure total PM emissions at or below 0.016 lb/MMBtu. In light of that guarantee, the White Stallion ALJs recommended that level as BACT. The Commission disagreed and found that the proper BACT level for total PM/PM₁₀ was 0.025 lb/MMBtu. Because the White Stallion facility will use the same type of boiler and will also burn pet coke like LBEC, the ALJs find the Commission's decision in White Stallion to be the most appropriate indicator of the BACT level for total PM/PM₁₀.⁸⁶ Therefore, as they did in their initial PFD, the ALJs continue to recommend that 0.025 lb/MMBtu represents the BACT limit for total PM/PM₁₀.

⁸⁵ Tr. at 118.

⁸⁶ The ALJs recognize that White Stallion will also be permitted to burn coal. However, White Stallion's use of pet coke and a CFB boiler—coupled with the permit's recent issuance by the same permitting agency considering this matter—make it the most reliable indicator of the appropriate BACT limit for LBEC.

2. Mercury

In addition to a lower total PM/PM₁₀ limit, LBEC also indicates that it will accept a lower mercury emission limit. Specifically, LBEC states that it “does not object to the lowering of the mercury limit for the LBEC CFB boilers . . . to 8.6×10^{-7} lb/MMBtu.”⁸⁷ This is higher than the limit proposed by the ALJs in the original PFD, but it is the same limit adopted by the Commission in the White Stallion permit (which is based upon the use of both pet coke and coal). The ED supports this limit, relying on the Commission’s decision in the White Stallion case.

Protestants also rely on White Stallion, but point out that the overall permit limit of 8.6×10^{-7} lb/MMBtu is intended to allow for the burning of coal, which generally has a higher mercury content. Protestants note that, in coming up with that overall permit limit, the White Stallion engineers also calculated a limit for when pet coke alone was burned. That value was determined to be 5.7×10^{-7} lb/MMBtu. Therefore, most Protestants argue that is the proper limit for mercury in this case, because LBEC will not burn coal, but only pet coke. Sierra Club goes further, though, citing other recently-issued permits for CFB boilers (with mercury limits ranging as low as 9.9×10^{-8} lb/MMBtu),⁸⁸ and claiming that the mercury limit here should be 4.0×10^{-7} lb/MMBtu. This limit proposed by Sierra Club is based upon the use of the “cleanest pet coke available” (*i.e.*, pet coke with no more than 0.05 ppm of mercury).⁸⁹ The ALJs do not believe it appropriate to require LBEC to use only pet coke meeting this stringent requirement. Therefore, they give no credence to this suggestion by Sierra Club.

At the remand hearing and in their briefing, the Protestants also spend some time discussing the erroneous basis for LBEC’s original proposed mercury limit [in particular, LBEC’s reliance on six outlier samples of pet coke reflecting a mercury content of 1.00 parts per

⁸⁷ LBEC’s *Remand Closing Argument*, at 22. LBEC used the figure 0.86×10^{-6} which is the equivalent of 8.6×10^{-7} . Because some of the parties (and the ALJs in their original PFD) use the 10^{-7} power when discussing the mercury limit, this same basis will be used for all proposed limits when addressing mercury emissions.

⁸⁸ See Sierra Club Ex. 366.

⁸⁹ Sierra Club’s *Closing Brief on Remand*, at 15.

million (ppm)]. In their original PFD, the ALJs found that LBEC's reliance on such data was not proper. The ALJs' conclusion appears to be further bolstered by the evidence on remand. The ED's expert, Randy Hamilton, testified that he did not believe those outlier samples were accurate indicators of the mercury content for those pet coke samples.⁹⁰ Further, LBEC's expert, David Cabe, conceded that the samples might not represent the actual mercury content of the pet coke but could simply indicate a detection level.⁹¹ The ALJs agree with Mr. Hamilton's concern and find it highly unlikely that the six samples in issue would each reflect a mercury content of exactly 1.00 parts per million (ppm) when showing a detection level to the hundredths of one ppm. This is particularly true when *all* of the other samples are significantly lower than 1.00 ppm. Dr. Sahu's assertion that the 1.00 ppm value was simply designed to represent a detection level appears very reasonable. But, regardless of the reason, the ALJs agree with the White Stallion experts' decision to exclude such outliers in determining the expected mercury content of pet coke, and believe that the evidence in this case clearly supports the same decision.

With that in mind, the ALJs turn to the issue of calculating the appropriate mercury BACT limit. In this regard, the ALJs agree with all parties and find that the White Stallion case provides the best indicator of the appropriate BACT level for mercury. However, the question remains as to the precise limit to use from the White Stallion case. The permit itself contains only an overall limit for White Stallion, and does not break it down further by whether coal or pet coke will be used as the fuel. However, the evidence indicates that White Stallion's experts made the calculations necessary to come up with a limit if pet coke alone was being burned as the fuel. That limit, proposed by the White Stallion engineers—and testified to by LBEC's own expert in this case—is 5.7×10^{-7} lb/MMBtu.⁹² Moreover, using LBEC's agreed control efficiency of 90% and excluding the unreliable pet coke sample data discussed above leads to this same result—namely, it shows an emission limit of 5.7×10^{-7} lb/MMBtu.⁹³

⁹⁰ Tr. at 3053.

⁹¹ Tr. at 2362 and 2397.

⁹² Tr. at 222-223.

⁹³ Tr. at 2450.

Ordinarily, the ALJs would simply accept the White Stallion limit agreed to by LBEC, considering it to be the best indicator of the appropriate BACT limit for mercury in this case. That conclusion would be based upon the assumption that the mercury limit could not be better refined to account for only pet coke being burned. However, that is simply not the case here—because clear evidence *does exist* that will allow the mercury limit to be set more precisely and accurately. And, this evidence comes from LBEC's own witness and data. That evidence shows that, when pet coke alone is the fuel source, the proper BACT limit for mercury would be 5.7×10^{-7} lb/MMBtu. Moreover, this limit is comparable to the limit proposed by the ALJs in the original PFD: 6.0×10^{-7} lb/MMBtu. Nothing presented in the remand hearing would suggest that a higher limit is more appropriate. In fact, as discussed above, the remand hearing actually revealed more evidence supporting the ALJs' original conclusion that LBEC's proposed BACT limit for mercury was flawed. Accordingly, the ALJs continue to believe that the appropriate BACT limit for mercury should be lowered—to either 5.7×10^{-7} lb/MMBtu (because this is what the evidence and White Stallion permit best support) or, at most, to the ALJs' original recommendation of 6.0×10^{-7} lb/MMBtu (which is consistent with the Calhoun County Navigation District permit limit, as discussed in the original PFD).

F. The Proper Revisions to Special Condition 44 to Address any Changes in BACT Limits.

Special Condition 44 is the permit condition that makes the draft permit a plant-wide applicability limit (PAL) permit. If Special Condition 44 were removed, the permit would no longer be a PAL permit. Other than this impact, none of the requested permits would be impacted by the removal of Special Condition 44. In its closing briefing on remand, LBEC indicated that it did not object to the removal of Special Condition 44 from the draft permit.⁹⁴ In light of the contentious and potentially uncertain nature of PAL permit provisions (as noted by the ALJs in the original PFD), the ALJs find it appropriate to recommend that Special Condition 44 be removed from the draft permit, thus removing the plant-wide applicability limits.

⁹⁴ LBEC's *Remand Response to Closing Arguments*, at 23.

III. TRANSCRIPT COSTS

In the original PFD, the ALJs noted that the total transcript costs at that time were \$35,830.54. The ALJs recommended that Protestants Sierra Club, EDF, and CACC each be required to reimburse LBEC the amount of \$2,833, and that all other transcript costs (totaling \$27,330.54) be borne by LBEC. However, in a letter to the Commission after issuance of the PFD, the ALJs also indicated that it would be appropriate to apportion all transcript costs to LBEC if this case were remanded for further proceedings. Specifically, in the June 2nd letter, the ALJs noted:

Finally, to the extent the Commission remands the case for further proceedings to allow the Applicant to correct any deficiencies, the ALJs would modify their recommendation regarding the allocation of transcript costs. Namely, if the Commission remands to allow the Applicant to correct deficiencies, then the ALJs recommend that all transcript costs be allocated against the Applicant. As Protestants note, many of the deficiencies found by the ALJs were raised early on by Protestants. Thus, it would be unfair to require Protestants to pay some portion of the transcript costs if Applicant is now given additional opportunities to correct such deficiencies that Applicant was aware of and could have addressed prior to the hearing.

The Commission did remand the case and the remand hearing was conducted, requiring additional transcript costs. LBEC has presented evidence of an additional \$11,802 in transcript costs that it seeks to have allocated equally among itself and the protesting parties, in addition to those previously sought by it.⁹⁵ After considering the issues remanded by the Commission, the recommendations made by the ALJs in this PFD, and the reasons given by the ALJs in their June 2nd letter to the Commission, the ALJs find it appropriate to recommend that all transcript costs be borne by LBEC and not allocated among any other parties.

The Commission's rules at 30 TEX. ADMIN. CODE § 80.23(d) list the factors to be considered in assessing reporting and transcription costs. The factors relevant to this case

⁹⁵ LBEC's *Remand Response to Closing Arguments*, Attachment 1.

include the following, along with the ALJs' analysis of each factor as applied to the facts of this case:

- (A) "The party who requested the transcript." The ALJs ordered the transcript, but it was not the fault of any Protestants that it had to be obtained in an expedited manner. Similarly, the transcript was needed because LBEC did not sufficiently meet its burden of proof during the original hearing on the merits, thus necessitating the remand proceeding.
- (B) "The financial ability of the party to pay costs." With the exception of EDF, Sierra Club, and CACC, the other Protestants are generally groups of individuals or small non-profit organizations with a lesser likely financial ability to pay costs.⁹⁶ LBEC is a for-profit corporate entity and likely has the greatest financial ability to pay costs.
- (C) "The extent to which the party participated in the hearing." Combined, LBEC, Sierra Club, and EDF accounted for the bulk of the hearing time—with LBEC accounting for the most time.
- (D) "The relative benefits to the various parties of having a transcript." As the party bearing the burden of proof, LBEC could anticipate the greatest potential benefit from an ability to cite and reassemble the information within the record, although all parties benefitted from having a transcript. LBEC is the party that initially requested that an expedited transcript be available each day during the hearing, thus showing it expected to receive a great benefit from the transcript.
- (E) "The budgetary constraints of a state or federal administrative agency participating in the proceeding." This factor is generally not relevant, as TCEQ rules preclude the Commission from assessing costs against parties that cannot appeal a Commission decision—namely the ED and OPIC. *See* 30 TEX. ADMIN CODE § 80.23(d)(2).
- (F) This factor is inapplicable.
- (G) "Any other factor which is relevant to a just and reasonable assessment of costs." Ultimately, on remand it was clearly shown that some of the BACT limits proposed by LBEC were not actually BACT. Moreover, the remand hearing was necessary because of LBEC's failure to meet its burden of proof on issues during the original hearing on the merits. This factor alone justifies apportioning the additional costs to LBEC.

⁹⁶ The "Medical Group" consists of some medical societies as well as doctors. Thus, some of the members of the group would likely have the resources to pay transcript costs, but others might not.

In looking at these factors, the majority of them—and the one that is most significant (factor G)—support a finding that LBEC should bear all of the transcript costs for this remand proceeding. But for LBEC's failure to adequately meet its burden of proof at the original hearing, this remand proceeding would not be necessary. The lowering of the BACT limits for mercury and total PM occurred only after the remand hearing, and reasonably could have occurred previously—but for LBEC's decision to not agree to lower them, despite evidence that would have warranted such. Accordingly, the ALJs find it appropriate to allocate all transcript costs on remand to LBEC.

Moreover, consistent with the ALJs' June 2nd letter, the ALJs revise their recommendation in the original PFD regarding transcript costs. Because many of the concerns addressed on remand were raised by the Protestants early in this proceeding—and well before the original hearing—this demonstrates that the length of the original hearing likely could have been shortened if LBEC had properly addressed those concerns before the original hearing. By not doing so, LBEC made it necessary for a longer original hearing and for the remand proceedings. As such, the ALJs find it reasonable to require LBEC to bear all costs associated with the transcript and to not be reimbursed by the other parties.

IV. CONCLUSION

After reviewing the evidence presented during the remand hearing and the arguments filed by the parties, the primary issue remains the PM emissions. In that regard, the ALJs note:

- The ED and ALJs have reviewed the additional modeling performed by LBEC in support of the application and it is found to be deficient because (1) many sources were inconsistent with their respective permit representations and (2) there was insufficient supporting data for the determination of the worst-case operating scenario combination for the POCCA Dock 2 sources.
- Without consideration of the additional modeling performed by the ED, the ALJs agree with Mr. Jamieson that, given the inconsistencies and deficiencies found in LBEC's modeling, LBEC's modeling does not make a sufficient demonstration to prove there would not be a violation of the 24-hr PM₁₀ Increment.

- The ED and ALJs disagree over whether the ED's modeling may then be relied upon to meet LBEC's burden of proof concerning the 24-hr PM₁₀ Increment.

Accordingly, the ALJs conclude that given the particular facts of this case as applied to the statutory restriction on the ED's role while in a contested case hearing, the ED's modeling should not be relied upon. As such, LBEC has failed to meet its burden of proving compliance with the PM₁₀ 24-hr increment. Other findings by the ALJs include that 0.025 lb/MMBtu represents the proper BACT emission limit for total PM/PM₁₀; that Special Condition 44 should be removed by agreement of all parties from the Application; and that 5.7×10^{-7} lb/MMBtu represents the proper BACT emission limits for mercury (or, alternately, that 6.0×10^{-7} lb/MMBtu would be an acceptable BACT limit for mercury, based upon another recent permit limit).

SIGNED December 1, 2010.



TOMMY L. BROMLES
ADMINISTRATIVE LAW JUDGE
STATE OFFICE OF ADMINISTRATIVE HEARINGS



CRAIG R. BENNETT
ADMINISTRATIVE LAW JUDGE
STATE OFFICE OF ADMINISTRATIVE HEARINGS

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



ORDER

**REGARDING THE APPLICATION BY LAW BRISAS ENERGY CENTER, LLC FOR
STATE AIR QUALITY PERMIT NO. 85013, HAZARDOUS AIR POLLUTANT MAJOR
SOURCE PERMIT NO. HAP 48, AND PREVENTION OF SIGNIFICANT
DETERIORATION PERMIT NO. PSD-TX-113879188
TCEQ DOCKET NOS. 2009-0033-AIR
SOAH DOCKET NOS. 582-09-2005**

On _____, the Texas Commission on Environmental Quality (TCEQ or Commission) considered the application of Las Brisas Energy Center, L.L.C., for State Air Quality and federal Prevention of Significant Deterioration permits to construct four new petroleum coke-fired circulating fluidized-bed (CFB) steam electric generating units or boilers, each with a maximum heat input of 3,080 MMBtu/hour, and the related support facilities. A Proposal for Decision and a Proposal for Decision on Remand were presented by Administrative Law Judges (ALJs) Tommy L. Broyles and Craig R. Bennett of the State Office of Administrative Hearings (SOAH), who conducted hearings in this matter. The record closed on November 8, 2010.

After considering the Proposals for Decision, the Commission makes the following Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

Introduction and Procedural History

1. Las Brisas Energy Center, LLC (Las Brisas) requested state air quality, Prevention of Significant Deterioration (PSD), Plant-wide Applicability Limit (PAL), and Hazardous

Air Pollutant § 112(g) (HAP) authorizations for the construction of the Las Brisas Energy Center (LBEC). The request for a PAL permit was subsequently withdrawn.

2. The LBEC will consist of four petroleum coke-fired circulating fluidized-bed (CFB) steam electric generating units or boilers, each with a maximum heat input of 3,080 MMBtu/hour, and related support facilities.
3. The LBEC will be located at a site on the Corpus Christi ship channel industrial development corridor within the Corpus Christi Industrial District in Corpus Christi, Nueces County, Texas.
4. Pursuant to Section 116.111(a)(1) of the Commission's rules, Las Brisas filed a PI-1 General Application with supporting information (Permit Application) with the TCEQ on May 19, 2008. Las Brisas also provided TCEQ with various updates to the Permit Application throughout the application review process.
5. The Permit Application was declared administratively complete on May 23, 2008, and technically complete on January 7, 2009.
6. Las Brisas published "Notice of Receipt of Application and Intent to Obtain Air Permit" in the *Corpus Christi Caller Times* on June 19, 2008.
7. Las Brisas published "Notice of Application and Preliminary Decision for Air Quality Permits" in the *Corpus Christi Caller Times* on January 14, 2009.
8. Las Brisas posted notice signs along the perimeter of the proposed site, declaring the filing of the Permit Application and stating the manner in which TCEQ could be contacted for further information.

9. The Permit Application was made available for public inspection at the Corpus Christi Public Library in Corpus Christi, Nueces County, Texas, during the entire public notice period.
10. Notice of the Permit Application was given to all agencies, regulatory bodies, and other entities to which notification is required.
11. After publication of public notice, a preliminary hearing was held in Corpus Christi, Texas on February 17, 2009. The preliminary hearing was presided over by ALJ Tommy L. Broyles who determined that SOAH's jurisdiction had been properly established.
12. ALJs Broyles and Craig R. Bennett conducted the hearing on the merits in Corpus Christi, Texas from November 2 through November 6 and November 9 through November 13, 2009. The following parties appeared and participated in the hearing: (1) Las Brisas; (2) Environmental Defense Fund, Inc.; (3) Sierra Club; (4) Texas Clean Air Cities Coalition; (5) the Corpus Christi Cardiology Association; (6) Dr. Greg Silverman; (7) the San Patricio Aransas Refugio Medical Society; (8) the Nueces County Medical Society; (9) the League of United Latin American Citizens Council No. 1; (10) various individuals including Roger Landress, Patrick Nye, Connie Vallie, and Wilson Wakefield; (11) the Commission's Executive Director, and (12) the Commission's Public Interest Council.
13. The hearing record closed on January 11, 2010, after written closing arguments were filed, and a Proposal for Decision (PFD) was issued.
14. The Commission considered the PFD at its June 30, 2010 Agenda and remanded the matter to SOAH for further consideration of the following seven issues:

- a) Whether there will be any increase in particulate matter (PM) from off-site material handling sources above what was modeled, or if the ultimate conclusions from the impacts analysis would be unchanged by secondary sources;
 - b) Review of additional modeling performed by Applicant in support of the Application;
 - c) The ability of Applicant to design and install a conveyer system that will not be a source of emissions;
 - d) The ability of Applicant to design and install a system for ash loading into trucks that will not be a source of emissions;
 - e) Whether the modeling inputs, with respect to moisture content, for the Port of Corpus Christi Authority facilities are proper;
 - f) What are the proper BACT emission limits for total particulate matter (PM/PM₁₀) and mercury; and
 - g) The proper revisions to Special Condition 44 to address any changes in BACT limits.
15. The remand hearing was held in Austin, Texas, from October 18-21, 2010, and the record closed on November 8, 2010, after closing arguments were filed.
16. Las Brisas submitted a complete Form PI-1 General Application signed by John Upchurch, an authorized representative of Las Brisas. The Permit Application also was signed by Shanon DiSorbo, a Texas registered professional engineer.
17. Las Brisas remitted a permit fee of \$75,000 with the Permit Application.
18. Las Brisas included all supplemental information required by TCEQ's Form PI-1 in the Permit Application.

19. The Permit Application failed to address all sources of air emissions associated with the LBEC that are subject to permitting under TCEQ rules, but on remand, additional information was submitted that completed the inclusion.
20. TCEQ staff reviewed the Permit Application to determine whether it complied with all applicable rules and policies and documented the conclusions of that review in the Construction Permit Review Analysis and Technical Review for Permit No. 79188/PSD-TX-1072.

Demonstrations Under 30 TEX. ADMIN. CODE §116.111: Protection of Public Welfare

Las Brisas's Air Dispersion Modeling

21. Las Brisas performed air dispersion modeling to support its application using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD), Version 07026.
22. The initial modeling that was included in the Application was deficient, so Applicant prepared additional modeling for its rebuttal case (rebuttal modeling).
23. The Port of Corpus Christi Association modified its permits after issuance of the PFD but before the Commission remanded the case to SOAH for additional evidence.
24. After the Commission remanded the case to SOAH, Applicant prepared a third round of modeling (remand modeling).
25. To date, Applicant has failed to perform modeling that is in accordance with applicable air quality rules and guidance.
26. To date, Applicant's modeling has not been verified by TCEQ's air dispersion modeling team as is required by the PSD program.
27. There are no schools located within 3,000 feet of the LBEC facilities to be authorized by the Permit Application.

28. In performing the air dispersion modeling, Las Brisas modeled emissions from all sources of emissions associated with the LBEC except fuel storage tanks.
29. Fuel storage tanks were appropriately excluded from the modeling because their emissions are low and the chemicals emitted are not particularly toxic.
30. Las Brisas did not model road dust emissions.
31. Under TCEQ's modeling guidance, modeling of road dust emissions is explicitly excluded for short-term averaging periods.
32. Under TCEQ's modeling guidance, modeling of plant road dust emissions is excluded for long-term averaging periods if the emissions will not be generated in association with transport, storage, or transfer of road-base aggregate materials and if best management practices are used to control dust emissions.
33. Las Brisas will be transporting no road-base aggregate materials at the LBEC and will employ best management practices for minimizing dust, such as paving of most roads and watering of unpaved road segments.
34. Las Brisas properly relied on the pre-processed meteorological data supplied by the TCEQ in conducting its modeling.
35. TCEQ's modeling staff performed an initial audit of Las Brisas' initial modeling and found it acceptable
36. Las Brisas' initial modeling was found to be deficient after the initial evidentiary hearing.
37. TCEQ's modeling staff performed an audit of Las Brisas' remand modeling and found it deficient.
38. The standards and guidelines applicable to the Permit Application's maximum modeled pollutant concentrations are: National Ambient Air Quality Standards ("NAAQS"),

PSD increments, Net Ground Level Concentration (NGLC) or “state property-line” standards, and Effects Screening Levels (ESLs).

NAAQS Analysis

39. NAAQS are federal standards representing concentrations at which no adverse health or welfare impacts are expected to occur.
40. EPA has established both primary and secondary NAAQS.
 - a. Primary NAAQS are designed to protect public health with an adequate margin of safety.
 - b. Secondary NAAQS are designed to protect the public welfare from any known or anticipated adverse effects of a designated pollutant.
41. EPA has established primary and secondary NAAQS for seven air contaminants, referred to as the “criteria” pollutants: sulfur dioxide (SO₂), particulate matter consisting of particles with diameters less than or equal to 10 microns (PM₁₀), particulate matter consisting of particles with diameters less than or equal to 2.5 microns (PM_{2.5}), ozone, nitrogen dioxide (NO₂), carbon monoxide (CO) and lead. The NAAQS are expressed as ambient concentrations in units of parts per million (ppm) or micrograms per cubic meter (µg/m³) averaged over a specific time period, such as 24 hours or a calendar quarter.
42. Under TCEQ’s Air Quality Modeling Guidelines, a PSD NAAQS demonstration is required for emissions of criteria pollutants for which the project emissions increase exceeds the PSD significance threshold. A state NAAQS demonstration is required for emissions of criteria pollutants for which the project emissions increase falls below the significance threshold.
43. The Permit Application included an acceptable PSD NAAQS demonstration for SO₂, NO₂, CO, PM₁₀, PM_{2.5}, and ozone.

44. Las Brisas conducted modeling to perform a state NAAQS analysis for lead.
45. Las Brisas directly modeled the LBEC's emissions of SO₂, NO_x, CO, PM₁₀, and lead for the purpose of demonstrating compliance with the NAAQS.
46. For the pollutants and averaging times for which maximum modeled concentrations resulting from emissions at the LBEC were above *de minimis* levels, Las Brisas modeled non-LBEC emissions and added an ambient background concentration to consider the influence of other sources affecting the LBEC impact areas.
47. The ambient background concentrations used by Las Brisas for the area of the LBEC are conservative and in accordance with TCEQ guidance.

NAAQS Analysis: SO₂

48. SO₂ NAAQS exist for three averaging periods: three-hour (1300 µg/m³), 24-hour (365 µg/m³), and annual (80 µg/m³).
49. Background concentrations for SO₂ were obtained from concentrations measured at monitoring site CAMS 98, which is located approximately 2.9 miles to the southeast of the LBEC site.
50. The maximum modeled 3-hour SO₂ concentration resulting from the combined effect of the emissions from the LBEC and sources affecting the LBEC impact area is 749.7 µg/m³; and the ambient background concentration is 115 µg/m³.
51. The modeled SO₂ emissions, when added to the background level of ambient SO₂, will not cause or contribute to an exceedance of the 3-hour SO₂ NAAQS of 1,300 µg/m³.
52. The maximum modeled 24-hour SO₂ concentration resulting from the combined effect of the emissions from the LBEC and sources affecting the LBEC impact area is 192.4 µg/m³; and the ambient background concentration is 16 µg/m³.

53. The modeled SO₂ emissions, when added to the background level of ambient SO₂, will not cause or contribute to an exceedance of the 24-hour SO₂ NAAQS of 365 µg/m³.
54. The maximum modeled annual SO₂ concentration resulting from the combined effect of the emissions from the LBEC and sources affecting the LBEC impact area is 59.6 µg/m³; and the ambient background concentration is 3.5 µg/m³.
55. The modeled SO₂ emissions, when added to the background level of ambient SO₂, will not cause or contribute to an exceedance of the annual SO₂ NAAQS of 80 µg/m³.

NAAQS Analysis: NO₂

56. NO₂ NAAQS exist for one averaging period: annual (100 µg/m³).
57. There are no TCEQ-operated NO₂ monitors located in Nueces County.
58. A screening background concentration for NO₂ was used in Las Brisas' modeling demonstration.
59. The maximum modeled annual average NO₂ concentration resulting from the combined effect of the emissions from the LBEC and sources affecting the LBEC impact area is 19.6 µg/m³; and the ambient background concentration is 35 µg/m³.
60. The modeled NO₂ emissions, when added to the background level of ambient NO₂, will not cause or contribute to an exceedance of the annual-average NO₂ NAAQS of 100 µg/m³.

NAAQS Analysis: CO

61. CO NAAQS exist for two averaging periods: 1-hour (40,000 µg/m³) and 8-hour (10,000 µg/m₃).

62. The maximum modeled 1-hour average CO concentration resulting from the LBEC's emissions at any off-site location is $779.5 \mu\text{g}/\text{m}^3$, which is below the *de minimis* level for 1-hour average CO of $2,000 \mu\text{g}/\text{m}^3$.
63. The impact of the LBEC's CO emissions on 1-hour average concentrations is insignificant and will not cause or contribute to an exceedance of 1-hour average CO NAAQS of $40,000 \mu\text{g}/\text{m}^3$.
64. The maximum modeled 8-hour average CO concentration resulting from the LBEC's emissions at any off-site location is $120.5 \mu\text{g}/\text{m}^3$, which is below the *de minimis* level for 8-hour average CO of $500 \mu\text{g}/\text{m}^3$.
65. The impact of the LBEC's CO emissions on 8-hour average concentrations is insignificant and will not cause or contribute to an exceedance of 8-hour average CO NAAQS of $10,000 \mu\text{g}/\text{m}^3$.

NAAQS Analysis: Lead

66. Lead NAAQS exist for one averaging period: calendar quarter ($0.00008 \mu\text{g}/\text{m}^3$).
67. A screening background concentration for lead from Nueces County was used in Las Brisas's modeling demonstration.
68. The maximum lead quarterly concentration from the LBEC sources was determined by multiplying the modeled annual concentration by four.
69. The maximum quarterly lead concentration resulting from the LBEC's emissions at any off-site location is $0.00008 \mu\text{g}/\text{m}^3$; and the ambient background concentration is $0.1 \mu\text{g}/\text{m}^3$.

70. The modeled lead emissions, when added to the background level of ambient lead, will not cause or contribute to an exceedance of the calendar quarter lead NAAQS of $0.15 \mu\text{g}/\text{m}^3$.

NAAQS Analysis: PM_{10}

71. PM_{10} NAAQS exist for two averaging periods: 24-hour ($150 \mu\text{g}/\text{m}^3$) and annual ($50 \mu\text{g}/\text{m}^3$).
72. Background concentrations for PM_{10} were obtained from concentrations measured at monitoring site CAMS 635, which is located approximately 0.9 miles to the southeast of the LBEC site.
73. The maximum modeled 24-hour average PM_{10} concentration resulting from the combined effect of the emissions from the LBEC and sources affecting the LBEC impact area is $83.7 \mu\text{g}/\text{m}^3$; and the maximum ambient background concentration is $55 \mu\text{g}/\text{m}^3$.
74. The LBEC's PM_{10} emissions, when added to the background level of ambient PM_{10} , will not cause or contribute to an exceedance of the 24-hour PM_{10} NAAQS of $150 \mu\text{g}/\text{m}^3$.
75. The maximum modeled annual average PM_{10} concentration resulting from the combined effect of the emissions from the LBEC and sources affecting the LBEC impact area is $8.3 \mu\text{g}/\text{m}^3$; and the maximum ambient background concentration is $27 \mu\text{g}/\text{m}^3$.
76. The LBEC's PM_{10} emissions, when added to the background level of ambient PM_{10} , will not cause or contribute to an exceedance of the annual PM_{10} NAAQS of $50 \mu\text{g}/\text{m}^3$.

NAAQS Analysis: $\text{PM}_{2.5}$

77. Both EPA and TCEQ accept demonstration of compliance with the PM_{10} NAAQS as a surrogate for demonstration of compliance with the $\text{PM}_{2.5}$ NAAQS.

78. The LBEC's emissions of PM₁₀ will not cause or contribute to an exceedance of the PM₁₀ NAAQS.
79. The LBEC's emissions of PM_{2.5} will not cause or contribute to an exceedance of the PM_{2.5} NAAQS.

NAAQS Analysis: Ozone

80. The LBEC will emit NO_x and volatile organic compounds (VOCs), which, in the presence of sunlight, can form ozone in the atmosphere.
81. TCEQ requires that an ozone impact analysis be performed to determine whether a proposed source will cause ozone exceedances in the local attainment area.
82. If the ambient ozone concentration is less than 75 parts per billion (ppb) and the source's VOC/NO_x ration is less than 2:1, then local ozone impacts will be insignificant and the analysis is deemed complete.
83. Las Brisas performed an ozone impact analysis and determined that ambient ozone levels are less than 75 ppb and that the LBEC's VOC/NO_x ration is less than 2:1.
84. Las Brisas demonstrated that there would not be a significant increase in the current ozone levels in the local attainment area due to the LBEC.

NAAQS Summary

85. Emissions from the LBEC will not cause or measurably contribute to an exceedance of any NAAQS.

PSD Increment Analysis

86. PSD increments are allowable incremental changes in off-property concentrations of certain pollutants for which PSD review has been triggered. Concentration increases in excess of these levels are considered by EPA as significantly deteriorating air quality.

87. Las Brisas performed a PSD increment demonstration for emissions of SO₂, NO₂, and PM₁₀ from the LBEC.
88. Maximum modeled concentrations resulting from emissions from the LBEC were above *de minimis* levels for SO₂ (3-hour, 24-hour, and annual averaging periods), NO₂ (for the annual averaging period), and PM₁₀ (for the 24-hour and annual averaging periods).
89. For the above pollutants and averaging times, Las Brisas incorporated emissions data for other PSD increment-consuming sources from TCEQ's Point Source Database into the model.
90. In addition to the Point Source Database data, Las Brisas incorporated emissions data for sources of PM₁₀ emissions located adjacent to the LBEC site on Port of Corpus Christi property that were not included in the Point Source Database.
91. For SO₂ (3-hour, 24-hour, and annual averaging periods), NO₂ (for the annual averaging period), and PM₁₀ (for the annual averaging period), the combined impacts from the LBEC's maximum modeled concentrations and the PSD increment-consuming sources are less than the applicable PSD increment.

PSD Increment Analysis: SO₂

92. The maximum modeled 3-hour average SO₂ concentration resulting from the combined effect of the emissions from the LBEC and other PSD increment-consuming sources in the area is 236 µg/m³.
93. The LBEC's SO₂ emissions will not cause or contribute to an exceedance of the 3-hour average SO₂ PSD increment of 512 µg/m³.

94. The maximum modeled 24-hour average SO₂ concentration resulting from the combined effect of the emissions from the LBEC and other PSD increment-consuming sources in the area is 78.4 µg/m³.
95. The LBEC's SO₂ emissions will not cause or contribute to an exceedance of the 24-hour average SO₂ PSD increment of 91 µg/m³.
96. The maximum modeled annual average SO₂ concentration resulting from the combined effect of the emissions from the LBEC and other PSD increment-consuming sources in the area is 8.7 µg/m³.
97. The LBEC's SO₂ emissions will not cause or contribute to an exceedance of the annual average SO₂ PSD increment of 20 µg/m³.

PSD Increment Analysis: NO₂

98. The maximum modeled annual average NO₂ concentration resulting from the combined effect of the emissions from the LBEC and other PSD increment-consuming sources in the area is 6.6 µg/m³.
99. The LBEC's NO₂ emissions will not cause or contribute to an exceedance of the annual average NO₂ PSD increment of 25 µg/m³.

PSD Increment Analysis: PM₁₀

100. On May 24, 2010, Special Condition 5 of PCCA Bulk Dock 2 Permit No. 9498 was altered to state that “[a]ll material handled at the permitted facilities shall have a minimum moisture content of 4.8 percent.”
101. The May 24, 2010 alteration to PCCA Bulk Dock 2 Permit No. 9498 also revised the maximum allowable emission rates to reflect the higher moisture content of materials

- handled at Bulk Dock 2 and to remove sources from the permit that are either no longer in use or authorized by other permits.
102. On remand, Applicant developed two material handling scenarios that the PCCA could employ to serve the LBEC.
 103. Both scenarios are feasible options for meeting the LBEC's material handling and storage needs, and both are capable of execution by PCCA.
 104. The LBEC and the PCCA do not constitute a single stationary source, because the two are not under common control.
 105. The two material handling scenarios proposed on PCCA property are properly considered as secondary sources.
 106. The maximum value considered for evaluation of the annual average PM₁₀ concentration resulting from modeling the combined effect of the emissions from the LBEC and other PSD increment-consuming sources in the area is 4.44 µg/m³.
 107. The LBEC's PM₁₀ emissions will not cause or contribute to an exceedance of the annual average PM₁₀ PSD increment of 17 µg/m³.
 108. Given the deficiencies in its modeling listed below, Las Brisas failed to sufficiently demonstrate that a 24-hr PM₁₀ Increment violation would not occur at a significant receptor when considering both time and space:
 - a. Many sources associated with the tenant leasing pad sites from the Port of Corpus Christi Authority, as well as the sources associated with the Port of Corpus Christi Authority Dock 1 permit were not consistent with their respective permit representations.

- b. Insufficient supporting data was provided for the determination of the worst-case operating scenario combination for the Port of Corpus Christi Authority Dock 2 sources relied on in the modeling analyses.

PSD Monitoring Analysis

109. Of the criteria pollutants that will be emitted by the LBEC in PSD-significant amounts, PSD monitoring *de minimis* levels exist for SO₂ (24-hour averaging period); NO₂ (annual averaging period), CO (8-hour averaging period), and PM₁₀ (24-hour averaging period).
110. Maximum modeled concentrations resulting from the LBEC's emissions are below all applicable PSD monitoring *de minimis* levels except for 24-hour SO₂ and 24-hour PM₁₀, for which Las Brisas used existing monitoring data.

State Property Line Analysis

111. State property-line standards are maximum air concentrations that are allowed to result from all sources on a contiguous site.
112. State property-line standards exist for total sulfuric acid (H₂SO₄) for 1-hour and 24-hour averaging periods and for SO₂ for a 30-minute averaging period.
113. Las Brisas modeled site-wide emissions from the LBEC for comparison to applicable property-line standards.
114. Las Brisas's maximum off-property modeled concentrations were below the applicable state property line standards.

Property-Line Standard: H₂SO₄

115. The maximum 1-hour average H₂SO₄ concentration resulting from site-wide emissions at any off-property location is 25.5 µg/m³.

116. The site-wide H₂SO₄ emissions will not cause an exceedance of the 1-hour H₂SO₄ property line standard of 50 µg/m³.
117. The maximum 24-hour average H₂SO₄ concentration resulting from site-wide emissions at any location is 4.7 µg/m³.
118. The site-wide H₂SO₄ emissions will not cause an exceedance of the 24-hour H₂SO₄ property line standard of 15 µg/m³.

Property-Line Standard: SO₂

119. The maximum 30-minute average SO₂ concentration resulting from site-wide emissions at any off-property location is 265.6 µg/m³.
120. The site-wide SO₂ emissions will not cause an exceedance of the 30-minute SO₂ property line standard of 1,021 µg/m³.

Property-Line Standard Summary

121. The LBEC will not cause an exceedance of any applicable state property-line standard.

ESL Analysis

122. The TCEQ uses ESLs as part of the state effects review of an air permit application, as conservative guideline levels to evaluate the potential for effects to public health, welfare or property as a result of exposure to air pollutants for which there is no state or federal air quality standard.
123. Health-based ESLs are set by starting with exposure levels that have been shown to cause no adverse health effects or very minor health effects in humans or animals, and then applying generous safety factors to establish levels that will be protective of the most sensitive members of the general public. Health-based ESLs are frequently set at levels

- that are 100 to 1000 times lower than exposure levels that are designed to be safe for workers exposed to airborne chemicals in occupational settings.
124. ESLs are set very conservatively and are designed to protect even the most sensitive members of the population, including children, the elderly, and people with pre-existing conditions.
 125. Maximum modeled air concentrations that do not exceed the ESL will not cause adverse health or welfare effects from the public's exposure to that chemical, and concentrations above the ESLs will not necessarily cause adverse health or welfare effects, but may require further study.
 126. It is common for an applicant's maximum modeled concentrations to exceed some ESLs and nevertheless receive authorization from TCEQ, as long as the steps outlined in TCEQ's Effects Evaluation Procedure are followed and the ground level concentrations are deemed acceptable by the TCEQ.
 127. An ESL analysis is conducted only for sources on the applicant's property.
 128. ESLs are set sufficiently conservatively such that if a source's maximum predicted off-property concentration is below the ESL, there will be no adverse health or welfare effects from exposure to that concentration even if there are also naturally occurring background concentrations or contributions from nearby sources.
 129. The ESL system currently used by TCEQ adequately protects the health and welfare of the public.
 130. Las Brisas modeled the LBEC's emissions of the following non-criteria pollutants: ammonia, aluminum, arsenic, beryllium, cadmium, calcium, hydrogen chloride (HCl),

chromium, copper, hydrogen fluoride (HF), iron, magnesium, manganese, mercury, nickel, potassium, selenium, silica, sodium, titanium, and vanadium.

131. Las Brisas compared the maximum concentrations of the modeled non-criteria pollutants to the ESLs contained in TCEQ's September 15, 2008 ESL list.
132. For ammonia, the maximum modeled 1-hour average concentration from the LBEC's emissions is $20.8 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for ammonia of $170 \mu\text{g}/\text{m}^3$.
133. The maximum modeled annual average concentration resulting from the LBEC's emissions of ammonia is $0.2 \text{ mg}/\text{m}^3$, which is less than the annual ESL for ammonia of $17 \mu\text{g}/\text{m}^3$.
134. For aluminum, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.012 \mu\text{g}/\text{m}^3$, which is below the applicable 1-hour ESL for aluminum of $50 \mu\text{g}/\text{m}^3$.
135. The maximum modeled annual average concentration resulting from the LBEC's emissions of aluminum is $0.0004 \mu\text{g}/\text{m}^3$, which is less than the applicable annual ESL for aluminum of $5 \mu\text{g}/\text{m}^3$.
136. For arsenic, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.002 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for arsenic of $0.1 \mu\text{g}/\text{m}^3$.
137. The maximum modeled annual average concentration resulting from the LBEC's emissions of arsenic is $0.00001 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for arsenic of $0.01 \mu\text{g}/\text{m}^3$.
138. For beryllium, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.0004 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for beryllium of $0.02 \mu\text{g}/\text{m}^3$.

139. The maximum modeled annual average concentration resulting from the LBEC's emissions of beryllium is less than $0.00001 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for beryllium of $0.002 \mu\text{g}/\text{m}^3$.
140. For cadmium, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.001 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for cadmium of $0.1 \mu\text{g}/\text{m}^3$.
141. The maximum modeled annual average concentration resulting from the LBEC's emissions of cadmium is less than $0.00001 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for cadmium of $0.01 \mu\text{g}/\text{m}^3$.
142. For calcium, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.005 \mu\text{g}/\text{m}^3$, which is below the applicable 1-hour ESL for calcium of $20 \mu\text{g}/\text{m}^3$.
143. The maximum modeled annual average concentration resulting from the LBEC's emissions of calcium is $0.0002 \mu\text{g}/\text{m}^3$, which is less than the applicable annual ESL for calcium of $2 \mu\text{g}/\text{m}^3$.
144. For HC1, the maximum modeled 1-hour average concentration from the LBEC's emissions is $20.6 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for HC1 of $75 \mu\text{g}/\text{m}^3$.
145. The maximum modeled annual average concentration resulting from the LBEC's emissions of HC1 is $0.0185 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for HC1 of $7.5 \mu\text{g}/\text{m}^3$.
146. For chromium, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.017 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for chromium of $1 \mu\text{g}/\text{m}^3$.

147. The maximum modeled annual average concentration resulting from the LBEC's emissions of chromium is $0.0001 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for chromium of $0.1 \mu\text{g}/\text{m}^3$.
148. For copper, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.001 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for copper of $10 \mu\text{g}/\text{m}^3$.
149. The maximum modeled annual average concentration resulting from the LBEC's emissions of copper is less than $0.0001 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for copper of $1 \mu\text{g}/\text{m}^3$.
150. For HF, the maximum modeled 1-hour average concentration from the LBEC's emissions is $1.8 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for HF of $5 \mu\text{g}/\text{m}^3$.
151. The maximum modeled annual average concentration resulting from the LBEC's emissions of HF is $0.0017 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for HF of $0.5 \mu\text{g}/\text{m}^3$.
152. For iron, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.063 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for iron of $50 \mu\text{g}/\text{m}^3$.
153. The maximum modeled annual average concentration resulting from the LBEC's emissions of iron is $0.0015 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for iron of $5 \mu\text{g}/\text{m}^3$.
154. For magnesium, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.002 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for magnesium of $50 \mu\text{g}/\text{m}^3$.
155. The maximum modeled annual average concentration resulting from the LBEC's emissions of magnesium is $0.0001 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for magnesium of $5 \mu\text{g}/\text{m}^3$.
156. For manganese, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.16 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for manganese of $2 \mu\text{g}/\text{m}^3$.

157. The maximum modeled annual average concentration resulting from the LBEC's emissions of manganese is $0.0001 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for manganese of $0.2 \mu\text{g}/\text{m}^3$.
158. For mercury, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.001 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for mercury of $0.25 \mu\text{g}/\text{m}^3$.
159. The maximum modeled annual average concentration resulting from the LBEC's emissions of mercury is less than $0.0001 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for mercury of $0.025 \mu\text{g}/\text{m}^3$.
160. For nickel, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.148 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for nickel of $0.15 \mu\text{g}/\text{m}^3$.
161. The maximum modeled annual average concentration resulting from the LBEC's emissions of nickel is $0.007 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for nickel of $0.015 \mu\text{g}/\text{m}^3$.
162. For potassium, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.007 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for potassium of $50 \mu\text{g}/\text{m}^3$.
163. The maximum modeled annual average concentration resulting from the LBEC's emissions of potassium is $0.0003 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for potassium of $5 \mu\text{g}/\text{m}^3$.
164. For selenium, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.07 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for selenium of $2 \mu\text{g}/\text{m}^3$.
165. The maximum modeled annual average concentration resulting from the LBEC's emissions of selenium is $0.00001 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for selenium of $0.2 \mu\text{g}/\text{m}^3$.

166. For silica, the maximum modeled 1-hour average concentration from the LBEC's emissions is $1.97 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for silica of $14 \mu\text{g}/\text{m}^3$.
167. The maximum modeled annual average concentration resulting from the LBEC's emissions of silica is $0.14 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for silica of $0.33 \mu\text{g}/\text{m}^3$.
168. For sodium, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.016 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for sodium of $20 \mu\text{g}/\text{m}^3$.
169. The maximum modeled annual average concentration resulting from the LBEC's emissions of sodium is $0.0006 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for sodium of $2 \mu\text{g}/\text{m}^3$.
170. For titanium, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.0002 \mu\text{g}/\text{m}^3$, which is below the 1-hour ESL for titanium of $50 \mu\text{g}/\text{m}^3$.
171. The maximum modeled annual average concentration resulting from the LBEC's emissions of selenium is $0.00001 \mu\text{g}/\text{m}^3$, which is less than the annual ESL for selenium of $5 \mu\text{g}/\text{m}^3$.

ESL Analysis: Vanadium

172. For vanadium, the maximum modeled 1-hour average concentration from the LBEC's emissions is $0.707 \mu\text{g}/\text{m}^3$, which is approximately 1.4 times the 1-hour ESL for vanadium of $0.5 \mu\text{g}/\text{m}^3$.
173. The maximum modeled 1-hour average concentration for vanadium is predicted to exceed the 1-hour ESL for only three hours per year, at any point off property.

174. The maximum modeled 1-hour average concentration for vanadium at any non-industrial receptor is predicted to exceed the 1-hour ESL by 1.2 times and only for two hours per year.
175. The short-term ESL for vanadium is conservative.
176. The maximum modeled annual average concentration resulting from the LBEC's emissions of vanadium is $0.032 \mu\text{g}/\text{m}^3$, which is below the annual ESL for vanadium of $0.05 \mu\text{g}/\text{m}^3$.
177. No adverse health or welfare effects will result from the public's exposure to emissions of vanadium from the LBEC.

ESL Summary

178. No adverse public health or welfare effects will result from the LBEC's emission of air contaminants for which no air quality standard exists.

Additional Findings Concerning Air Emissions

179. The LBEC stationary vents will not exceed the opacity limit of 20 percent over a six-minute period established in 30 TEX. ADMIN. CODE § 111.111(a)(1)(B).
180. The LBEC will comply with limits on the emission rate of particulate matter from the auxiliary boilers, propane vaporizers, diesel engines, and material handling baghouses, established under 30 TEX. ADMIN. CODE § 111.151.
181. Emissions of particulate matter from the LBEC CFB boilers will not be greater than 0.3 pound total suspended particulates per MMBtu heat input over a two-hour period during solid fuel firing.

182. Emissions of particulate matter from the LBEC CFB boilers will not be greater than 0.1 pound total suspended particulates per MMBtu heat input over a two-hour period during natural gas or propane firing.
183. Emissions of SO₂ from the LBEC CFB boilers will not be greater than 3.0 pound per MMBtu heat input over a three-hour period during solid fuel firing.
184. TCEQ disaster review requirements were triggered for the LBEC as a result of the on-site storage of anhydrous ammonia, which will be used as a reagent in the selective non-catalytic reduction (SNCR) NO_x emission control equipment.
185. The Permit Application included a Disaster Review Checklist identifying the process controls, mitigation systems, monitoring/detection systems, and emergency response plan measures that Las Brisas will implement to minimize the disaster potential associated with the storage of anhydrous ammonia and to protect the public health and welfare.

Summary of Protection of Public Health and Welfare

186. The proposed emissions from the LBEC will comply with all ambient air contaminant standards and guidelines at off-property locations.

Unregulated Substances

187. Carbon dioxide is not currently subject to regulation under the Federal Clean Air Act (FCAA) and has not previously been subject to regulation.
188. Carbon dioxide is not currently subject to regulation under the Texas Clean Air Act (TCAA) and has not previously been subject to regulation.
189. The LBEC will emit some substances that are not presently regulated under the FCAA or the TCAA, such as water vapor, nitrogen, methane, ethane, and carbon dioxide.

Measurement of Emissions: 30 TEX. ADMIN. CODE § 116.111(a)(2)(B)

190. Las Brisas will install, operate, and maintain continuous emissions monitoring systems (CEMS) to provide a continuous demonstration of compliance with limits of NO_x, CO, SO₂, and NH₃ from the LBEC CFB boiler stacks.
191. Las Brisas will install, operate, and maintain a continuous opacity monitoring system (COMS) to provide a continuous demonstration of compliance with the limitation on opacity from the LBEC CFB boiler stacks.
192. Las Brisas will install, operate, and maintain CEMS or a sorbent trap to provide a continuous demonstration of compliance with limits of mercury from the LBEC CFB boiler stacks.
193. Las Brisas will perform initial emission testing; sample petroleum coke quarterly to determine the heat content and trace metal concentrations; perform annual stack testing on the CFB boilers for pollutants not monitored with a CEMS; and undertake other actions at various emission points throughout the LBEC site to ensure that emissions are within permit limits and comply with the terms of the Draft Permit.
194. Las Brisas's proposed methods for measuring emissions from the LBEC facilities are adequate to assure compliance with the permit conditions and emissions limitations of the Draft Permit.
195. The Draft Permit contains appropriate emissions-measuring provisions for each type of emission from each emission point, with consideration given to the relative significance of each and to any applicable emissions measurement requirements of federal programs such as the New Source Performance Standards (NSPS).

Best Available Control Technology (BACT): 30 TEX. ADMIN. CODE § 116.111(a)(2)(C)

196. The TCEQ has provided a draft guidance document entitled “Evaluating Best Available Control Technology (BACT) in Air Permit Applications,” setting forth guidance for evaluation of BACT proposals submitted in a New Source Review air permit application.
197. Under the draft guidance document relied on by the Executive Director in evaluating BACT, the BACT evaluation is conducted using a tiered analysis approach, involving three different tiers. A Tier I evaluation involves a comparison of the applicant's BACT proposal to emission reduction performance levels accepted as BACT in recent permit reviews involving the same process or industry, with an evaluation of new technical developments necessary in some cases. A Tier II evaluation involves consideration of controls that have been accepted as BACT in recent permits for similar air emission streams in a different process or industry. A Tier III evaluation is a detailed technical and quantitative economic analysis of all emission reduction options available for the process under review. The guidance document also notes that the Tier III evaluation is rarely necessary because technical practicability and economic reasonableness have usually been firmly established by industry practice as identified in the first two tiers.
198. Las Brisas' BACT analysis identified recently approved permits for several petroleum coke-fired CFB boilers as well as support facilities similar to those that will be used as part of the LBEC.
199. Las Brisas' BACT analysis was conducted under Tier I, although Las Brisas went beyond Tier I and provided information to TCEQ demonstrating that selective catalytic reduction (SCR) technology is not technically feasible for the control of NO_x emissions from petroleum coke-fired CFB boilers.

200. Las Brisas' BACT analysis was performed in accordance with TCEQ guidance.
201. For the CFB boilers, Las Brisas will use SNCR to minimize NO_x emissions; a fabric filter baghouse to control emissions of PM and trace metals; limestone injection and a polishing scrubber to control emissions of SO₂, HCl, HF, and H₂SO₄; and limestone injection, fabric filters, and an activated carbon injection system to control mercury emissions.
202. For the auxiliary boilers, operation of which will be limited to an annual capacity factor of 28.5 percent each based on heat input, low-NO_x burners will be used to minimize NO_x emissions, pipeline quality natural gas will be used to minimize SO₂ and PM emissions, and efficient combustion technology will be used to minimize VOC and CO emissions.
203. For the propane vaporizers, operation of which will be limited to an annual capacity factor of 28.5 percent each based on heat input, propane will be used to minimize PM, VOC, and SO₂ emissions.
204. For the material handling sources, a combination of fabric filters and enclosed conveyor systems will be used to control the emissions of PM and PM₁₀.
205. The entire length of the on-site petroleum coke and limestone conveyor will be totally enclosed in a tube.
206. There will be no emissions from the on-site petroleum coke and limestone conveyor.
207. The only emissions that will result from the on-site transfer of petroleum coke and limestone to and within the Material Transfer Tower are those emissions that will be exhausted through the Petroleum Coke Silo baghouses.

208. For the diesel-fired emergency generators, fire water pumps, and boiler feed water pumps, operation of which will be limited to 500 non-emergency hours per year each, the low sulfur fuel will be used to minimize SO₂ emissions.
209. The diesel engines will meet applicable NSPS for Stationary Compression Ignition Internal Combustion Engines.
210. For the cooling tower, PM emissions will be minimized through the cooling tower design and by utilizing mist eliminators on the tower.
211. For the diesel storage tanks, VOC emissions will be minimized by the low vapor pressure of fuel stored in the tanks and by utilizing submerged filling.
212. For the ammonia handling and storage facilities, ammonia emissions will be minimized by storing the ammonia in high pressure tanks and by conducting daily Audio/Visual/Olfactory inspections to detect leaks.
213. For the ash loading systems, a combination of a sealed loading spout and a fabric shroud will be used to control the emissions of PM and PM₁₀.
214. The fly ash and bottom ash loading systems will utilize a loading spout that creates a seal so that there will be no leakage of fly ash or bottom ash during the loading of tank trucks.
215. The only emission that will occur from the fly ash and bottom ash loading systems are those that will be routed through the ash silo baghouses.

BACT for CFB Boilers

216. Utilization of good combustion practices with an emission rate of 0.11 lb/MMBtu on a 12-month rolling average basis is BACT for CO emissions from the CFB boilers.

217. The CFB boiler design and the application of SNCR to meet NO_x emission limits of 0.10 lb/MMBtu over an hourly average and 0.070 lb/MMBtu over a 30-day rolling average is BACT for NO_x emissions from the CFB boilers.
218. The use of SCR was rejected as BACT for NO_x emissions from the CFB boilers because it has not been shown to be technically feasible.
219. Application of limestone injection and polishing scrubbers with emission rates of 0.144 lb/MMBtu over a 30-day rolling average and 0.086 lb/MMBtu over a 12-month rolling average is BACT for SO₂ emissions from the CFB boilers.
220. Application of fabric filter baghouses with a filterable PM/PM₁₀ emission rate of 0.011 lb/MMBtu and a total PM/PM₁₀ emission rate of 0.025 lb/MMBtu over a 3-hour average is BACT for PM and PM₁₀ emissions from the CFB boilers.
221. Application of good combustion practices with an emission rate of 0.0050 lb/MMBtu over a 3-hour average is BACT for VOC emissions from the CFB boilers.
222. Application of limestone injection and polishing scrubbers with an emission rate of 0.022 lb/MMBtu over a 3-hour average is BACT for H₂SO₄ emissions from the CFB boilers.
223. Application of limestone injection and polishing scrubbers with an emission rate of 0.0038 lb/MMBtu over a 3-hour average is BACT for fluorine emissions (primarily in the form of HF) from the CFB boilers.
224. Application of limestone injection and polishing scrubbers with an emission rate of 0.0044 lb/MMBtu over a 3-hour average is BACT for HCl emissions from the CFB boilers.

225. Application of limestone injection, fabric filters, and the use of activated carbon with an emission rate of 5.7×10^{-7} lb/MMBtu over a 12-month rolling average is BACT for mercury emissions from the CFB boilers.
226. Application of a fabric filter baghouses is BACT for lead emissions from the CFB boilers.
227. Application of operational control systems with an emission rate of 10 ppm over an hourly average and 5 ppm over a 12-month rolling average is BACT for emissions of ammonia from the CFB boilers.

BACT for Auxiliary Boilers

228. Application of low-NO_x burners to meet a NO_x emission limit of 0.035 lb/MMBtu represents BACT for the auxiliary boilers.
229. Because the auxiliary boilers are limited by a 28.5-percent annual capacity limitation, additional controls are not cost effective. Therefore the use of low-NO_x burners, natural gas, and efficient combustion technology represent BACT for the auxiliary boilers.

BACT for Propane Vaporizers

230. There are no low-NO_x burners available for the propane vaporizers. Therefore the use of propane represents BACT for the propane vaporizers.

Material Handling BACT

231. Use of enclosed conveyors and fabric filters designed to achieve emission limits of 0.005 and 0.01 grain PM/dry standard cubic foot is BACT for emissions of PM/PM₁₀ from the material handling sources.

Diesel Engine BACT

232. The use of diesel engines that meet the requirements of NSPS Subpart IIII, limiting operations no more than 500 hours per year, and the use of low sulfur diesel fuel represents BACT for the diesel engines associated with the emergency generators, fire water pumps, and boiler feed water pumps.

Cooling Tower BACT

233. The design of the cooling towers and utilization of mist eliminators to limit drift to 0.0005-percent is BACT for emissions of PM from the cooling towers.

Diesel Storage Tanks BACT

234. Submerged filling and the low vapor pressure of fuel stored in the tanks is BACT for emissions of VOCs from the diesel storage tanks.

Ammonia Handling and Storage Facilities BACT

235. Storing the ammonia in high pressure tanks and conducting daily Audio/Visual/Olfactory inspections to detect leaks is BACT for the ammonia handling and storage facilities.

BACT Summary

236. The above emission limitations and controls are BACT.

NSPS: 30 TEX. ADMIN. CODE § 116.111(a)(2)(D)

237. The CFB boilers are expected to comply with NSPS Subpart Db.
238. The diesel engines are expected to comply with NSPS Subpart IIII.
239. Compliance with all applicable NSPS requirements is a condition of the Draft Permit. Special Condition 3 of the Draft Permit needs to be revised to reflect that NSPS Subpart Db, not Subpart Da, applies to the CFB boilers due to revisions to NSPS Subpart Da that occurred after the Draft Permit was issued by TCEQ.

NESHAPs: 30 TEX. ADMIN. CODE § 116.111(a)(2)(E)

240. There are no national emissions standards for hazardous air pollutants (NESHAPs) applicable to facilities of a type comprising the LBEC.

NESHAPs for Source Categories: 30 TEX. ADMIN. CODE § 116.111(a)(2)(F)

241. The LBEC diesel engines are expected to comply with 40 CFR Part 63, Subpart ZZZZ, the requirements for NESHAPs for source categories, or maximum achievable control technology (MACT) standards, for stationary reciprocating internal combustion engines.
242. MACT Subpart DDDDD for Industrial/Commercial/Institutional Boilers and Process Heaters, which would have applied to the auxiliary boilers and propane vaporizers, has been vacated. The case-by-case MACT analysis filed by Las Brisas makes a case-by-case MACT demonstration for the auxiliary boilers and propane vaporizers.

Performance Demonstration: 30 TEX. ADMIN. CODE § 116.111(a)(2)(G)

243. The Draft Permit contains provisions for demonstrating achievement of the performance specified in the Permit Application, such as conducting performance testing of emissions from the CFB boiler, auxiliary boiler, and propane vaporizer stacks and selected material handling baghouses once the LBEC is constructed and operating.
244. Provisions for demonstrating achievement of the performance specified in the application will adequately demonstrate the performance of the LBEC facilities.

Nonattainment Review: 30 TEX. ADMIN. CODE § 116.111(a)(2)(H)

245. The LBEC will be located in Nueces County, which is classified as attainment or not classifiable for all criteria pollutants.
246. Because the LBEC is not located in an area that is designated nonattainment for any air contaminant, the LBEC is not subject to nonattainment review requirements.

PSD Review: 30 TEX. ADMIN. CODE § 116.111(a)(2)(I)

247. As part of Texas' State Implementation Plan, EPA has approved TCEQ's program for using Chapter 116 new source review permits as the vehicle for undertaking the demonstrations required by the federal PSD program.
248. The LBEC has the potential to emit more than 100 tons of any single regulated air contaminant and the following pollutants in "significant" quantities as defined in 40 C.F.R. §52.21(b)(23): NO_x, SO₂, CO, PM, PM₁₀, VOC, and H₂SO₄.
249. Las Brisas conducted a source impact analysis showing that allowable emissions from the LBEC will not cause or measurably contribute to air pollution in violation of any NAAQS.
250. Las Brisas conducted an appropriate additional impacts analysis that assessed the potential impairment to visibility, soils, and vegetation as a result of the LBEC and associated commercial, residential, and industrial growth, and assessed air quality impacts as a result of such growth.
251. The LBEC will not generate sufficient growth in the area to significantly increase air contaminants from secondary sources.
252. Off-site material handling operations and PM₁₀ emissions from such operations will increase and the two scenarios presented by Las Brisas for the POCC are secondary emissions.
253. Modeling of the LBEC's emissions shows concentrations that will be protective of soils and vegetation.
254. The LBEC will not have adverse impacts on visibility because the nearest Class I area is more than 100 kilometers away.

255. A Class I area visibility analysis is not required because the nearest Class I area is more than 100 km from the site of the LBEC.

Air Dispersion Modeling or Ambient Monitoring: 30 TEX. ADMIN. CODE § 116.111(a)(2)(J)

256. Las Brisas performed computerized air dispersion modeling in order to demonstrate the air impacts from the LBEC.

Federal Standards of Review for Constructed or Reconstructed Major Sources of Hazardous Air Pollutants (HAPs): 30 TEX. ADMIN. CODE § 116.111(a)(2)(K) (Case-By-Case MACT)

257. Las Brisas prepared an FCAA § 112(g) Case-by-Case MACT analysis to establish case-by-case MACT requirements for the LBEC auxiliary boilers and propane vaporizers.
258. Las Brisas performed the Case-by-Case MACT analysis in two steps. In the first step, Las Brisas established the “MACT floor” or the most stringent limitation achieved in practice by the best controlled similar source. In the second step, Las Brisas performed a “beyond the floor” analysis of the other methods for potentially reducing emissions to a greater degree, considering such factors as the cost of achieving such emissions reductions and any non-air quality health and environmental impacts and energy requirements to establish whether further reductions are achievable.
259. Various metallic and organic HAPs are emitted by the LBEC auxiliary boilers and propane vaporizers.
260. Filterable PM is an appropriate surrogate pollutant for HAP metals because filterable PM and non-mercury HAP metals have common formation mechanisms and control techniques.

261. CO is an appropriate surrogate pollutant for organic HAP emissions because CO and organic HAPs have common formation mechanisms and control technologies.
262. The Case-by-Case MACT emission limit for HAP metal emissions from the LBEC auxiliary boilers and propane vaporizers corresponds to a Filterable PM emission limit of 0.0019 lb/MMBtu.
263. The Case-by-Case MACT emission limit for organic HAP emissions from the LBEC auxiliary boilers corresponds to a CO emission limit of 50 ppm.
264. The Case-by-Case MACT emission limit for organic HAP emissions from the LBEC propane vaporizers corresponds to a CO emission limit of 100 ppm.

Emissions Cap and Trade: 30 TEX. ADMIN. CODE § 116.111(a)(2)(L)

265. The LBEC will not be located in the Houston/Galveston ozone nonattainment area.
266. The LBEC is not subject to the Mass Emissions Cap and Trade program.

Compliance History

267. Las Brisas's compliance history classification is average by default because Las Brisas is a new entity.

Permit

268. The maximum allowable emission rate table (MAERT) in the Draft Permit lists all sources of air contaminants regulated under the permit.
269. The LBEC has been planned to comply with the emission limits specified in the Draft Permit's MAERT.
270. The LBEC facilities can be operated to meet the permit requirements.
271. The Draft Permit prescribes requirements for demonstrating initial and ongoing compliance with all applicable requirements of the permit and the TCAA.

Transcript Costs

272. The transcription costs for this case are \$35,830.54, which Las Brisas has paid.
273. Many of the concerns addressed during the hearings on this matter were raised by the Protestants early in this proceeding and well before the original hearing. This demonstrates that the length of the hearings likely could have been shortened if LBEC had properly addressed those concerns before the original hearing.
274. LBEC is the party that initially requested that an expedited transcript be available each day during the hearing, thus showing it expected to receive a great benefit from the transcript.
275. With the exception of EDF, Sierra Club, and CACC, the other Protestants are generally groups of individuals or small non-profit organizations with a lesser likely financial ability to pay costs.
276. LBEC is a for-profit corporate entity and likely has the greatest financial ability to pay costs.

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the Las Brisas's permit application pursuant to TEX. HEALTH & SAFETY CODE Chapter 382 and TEX. WATER CODE Chapter 5.
2. Las Brisas's permit application was directly referred to SOAH pursuant to TEX. WATER CODE § 5.557.
3. Pursuant to TEX. GOV'T CODE § 2003.047, SOAH has jurisdiction to conduct a hearing and to prepare a proposal for decision in this matter.
4. Notice of Las Brisas's permit application was provided pursuant to 30 TEX. ADMIN. CODE § 39.601, et seq., and TEX. GOV'T CODE §§ 2001.051 and 2001.052.

5. Las Brisas submitted its permit application pursuant to 30 TEX. ADMIN. CODE §§ 116.110(f) and 116.140.
6. Pursuant to 30 TEX. ADMIN. CODE § 80.17(a), in a contested case hearing involving an air quality permit application, the burden of proof is on the applicant to prove by a preponderance of the evidence that it satisfies all statutory and regulatory requirements.

Protection of Public Health and Welfare

7. A demonstration of compliance with the PM₁₀ NAAQS suffices to demonstrate compliance with the PM_{2.5} NAAQS.
8. When the maximum modeled concentration of a pollutant from a project is less than a NAAQS *de minimis* level, it is unnecessary to incorporate background levels or emissions from other sources in the area in the analysis of that pollutant because the maximum predicted concentration level is insignificant.
9. Pre-construction monitoring is not required to evaluate the cumulative impact of the LBEC's emissions of SO₂ and PM₁₀ because of the availability of existing conservative monitoring data.
10. No pre-construction monitoring is required for any of the air contaminants for which Las Brisas's maximum modeled concentrations were below PSD monitoring significance levels.
11. For NO₂ and CO, pre-construction monitoring is not required because the predicted concentrations of these pollutants are less than their respective PSD monitoring significance levels.
12. Based on the above Findings of Fact, the proposed emissions from the LBEC will comply with the opacity limits and particulate matter emission rates set forth in 30 TEX. ADMIN.

CODE Chapter 111 concerning control of air pollution from visible emissions and particulate matter.

13. Based on the above Findings of Fact, the proposed emissions from the LBEC will comply with the sulfur compound emission requirements set forth in 30 TEX. ADMIN. CODE Chapter 112 concerning control of air pollution from sulfur compounds.
14. Based on the above Findings of Fact, Las Brisas will comply with all applicable standards adopted by reference in 30 TEX. ADMIN. CODE Chapter 113.
15. The proposed LBEC diesel fuel tanks will only store diesel that meets the specifications set forth in 30 TEX. ADMIN. CODE Chapter 114.
16. The unloading of diesel fuel from trucks into storage tanks at the LBEC will comply with applicable control, inspection, and recordkeeping requirements set forth in 30 TEX. ADMIN. CODE Chapter 115.
17. The LBEC is not subject to the rules set forth in 30 TEX. ADMIN. CODE Chapter 117 regarding the control of NO_x because it will not be located in an ozone nonattainment area and will be placed into service after December 31, 1995.
18. The LBEC is required to operate in compliance with any orders of the Commission relating to generalized and localized air pollution episodes under 30 TEX. ADMIN. CODE Chapter 118.
19. The LBEC is not subject to the emission reduction plan requirements of 30 TEX. ADMIN. CODE Chapter 118.
20. Carbon dioxide is not currently subject to regulation under the FCAA or TCAA.

21. Las Brisas is not required to evaluate any impacts from the LBEC's emissions of substances that are not regulated under the FCAA or TCAA, such as water vapor, nitrogen, methane, ethane, and carbon dioxide.

Measurement of Emissions: 30 TEX. ADMIN. CODE § 116.111(a)(2)(B)

22. In accordance with 30 TEX. ADMIN. CODE § 116.111(a)(2)(B), the LBEC will have provisions for measuring the emission of air contaminants as determined by the Commission's Executive Director.

BACT: 30 TEX. ADMIN. CODE § 116.111(a)(2)(C)

23. An applicant that is proposing to construct a CFB boiler power plant is not required to include other electric generation technologies, such as integrated gasification/combined cycle (IGCC) technology, in its BACT analysis.
24. In accordance with 30 TEX. ADMIN. CODE § 116.111(a)(2)(C), the LBEC will utilize BACT, with consideration given to the technical practicability and economic reasonableness of reducing or eliminating emissions from the facilities of which it will be comprised.

NSPS: 30 TEX. ADMIN. CODE § 116.111(a)(2)(D)

25. There will be three types of equipment at the LBEC that will be subject to two different NSPS: the CFB boilers; the auxiliary boilers; and the diesel-fired emergency generators, fire water pumps, and boiler feed water pumps. In accordance with 30 TEX. ADMIN. CODE § 116.111(a)(2)(D), the emissions from the LBEC will meet the requirements of any applicable NSPS as listed under Title 40 C.F.R. Part 60, promulgated by the EPA under authority granted under Section 111 of the FCAA, as amended.

NESHAPS: 30 TEX. ADMIN. CODE § 116.111(a)(2)(E)

26. No requirement set forth at 30 TEX. ADMIN. CODE § 116.111(a)(2)(E) regarding compliance with NESHAPS is applicable to the LBEC.

NESHAPS for Source Categories: 30 TEX. ADMIN. CODE § 116.111(a)(2)(F)

27. The LBEC diesel engines are the only type of equipment at the LBEC subject to a NESHAPS for source categories. In accordance with 30 TEX. ADMIN. CODE § 116.111(a)(2)(F), the emissions from the LBEC will meet the requirements of any applicable MACT standards as listed under Title 40 C.F.R. Part 63, promulgated by the EPA under authority granted under Section 112 of the FCAA, as amended, or as listed under 30 TEX. ADMIN. CODE Chapter 116.

Performance Demonstration: 30 TEX. ADMIN. CODE §116.111(a)(2)(G)

28. In accordance with 30 TEX. ADMIN. CODE § 116.111 (a)(2)(G) the LBEC facilities will achieve the performance specified in the permit application.

Nonattainment Review: 30 TEX. ADMIN. CODE §116.111(a)(2)(H)

29. Nonattainment review requirements are not applicable to the LBEC.

PSD Review: 30 TEX. ADMIN. CODE § 116.111 (a)(2)(I)

30. The LBEC constitutes a new major source because it emits more than 100 tons per year of any single criteria pollutant; therefore, PSD review is triggered.

Air Dispersion Modeling or Ambient Monitoring: 30 TEX. ADMIN. CODE 116. 111(a)(2)(J)

31. In accordance with 30 TEX. ADMIN. CODE § 116.111(a)(2)(J), computerized air dispersion modeling was performed as required to determine the air impacts from the LBEC.

32. The Executive Director's modeling constitutes improper assistance to the Applicant in meeting its burden of proof in violation of TEX. WATER CODE §5.228(e); and therefore, it may not be considered.

HAPs: 30 TEX. ADMIN. CODE § 116.111(a)(2)(K)

33. The LBEC will be a major source of HAPs.

34. In accordance with 30 TEX. ADMIN. CODE § 116.111(a)(2)(K), a case-by-case MACT analysis was conducted to establish federally enforceable MACT emission limits for LBEC auxiliary boilers and propane vaporizers.

35. The LBEC petroleum coke-fired CFB boilers are exempt from case-by-case MACT review pursuant to 30 TEX. ADMIN. CODE § 116.402(a).

36. In accordance with 30 TEX. ADMIN. CODE § 116.111(a)(2)(K), the LBEC complies with all applicable requirements of Chapter 116 regarding case-by-case MACT review.

Mass Cap and Trade Allocations: 30 TEX. ADMIN. CODE 116.111(a)(2)(L)

37. The requirement set forth at 30 TEX. ADMIN. CODE § 116.111(a)(2)(L) is not applicable to the LBEC.

Las Brisas's Permit

38. The special conditions in the permit are appropriately added under 30 TEX. ADMIN. CODE §§ 116.115(c)(1) and 116.186(c) and are consistent with the TCAA.

39. No changes to the permit should be made on the basis of compliance history in accordance with 30 TEX. ADMIN. CODE § 116.110(c), because Las Brisas has an "average" compliance history rating as determined in accordance with 30 TEX. ADMIN. CODE Chapter 60.

40. In accordance with TEX. HEALTH & SAFETY CODE § 382.0518(b)(1), the LBEC facilities as modified by this Order will use at least BACT, considering the technical practicability and economic reasonableness of reducing or eliminating its emissions.
41. In accordance with 30 TEX. ADMIN. CODE § 116.400, the LBEC auxiliary boilers and propane vaporizers will employ the MACT emissions limitations for new sources.

Transcription Costs

52. Transcription costs should be paid solely by Las Brisas.

NOW, THEREFORE, IT IS ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY THAT:

(Additional ordering paragraphs to be included by Commission)

1. The Executive Director's Response to Public Comments is adopted; however, if there is any conflict between this Order and the Executive Director's Response to Comments, this Order prevails.
2. The two material handling scenarios offered by Las Brisas during the remand hearing are included in the Permit Application for purposes of preconstruction authorization and deviations from those plans must be approved by the Executive Director in the ordinary course of construction changes.
3. All other motions, requests for entry of specific Findings of Fact or Conclusions of Law, and any other requests for general or specific relief, if not expressly granted herein, are hereby denied for want of merit.
4. The effective date of this Order is the date the Order is final, as provided by 30 TEX. ADMIN CODE § 80.273 and TEX. GOV'T CODE § 2001.144.
5. The Chief Clerk of the Commission shall forward a copy of this Order to all parties.

6. If any provision, sentence, clause, or phrase of this Order is for any reason held to be invalid, the invalidity of any portion shall not affect the validity of the remaining portions of this Order.

ISSUED:

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

Bryan W. Shaw, Ph.D., Chairman
For the Commission