

SOAH DOCKET NO. 582-06-1502
TCEQ DOCKET NO. 2006-0195-AIR

APPLICATION OF § BEFORE THE STATE OFFICE
OAK GROVE MANAGEMENT §
COMPANY, LLC FOR § OF
PROPOSED AIR PERMIT §
NO. 76474 AND PSD-TX-1056 § ADMINISTRATIVE HEARINGS

EXECUTIVE DIRECTOR'S REPLIES TO PROTESTANT'S AND OFFICE OF PUBLIC
INTEREST COUNSEL'S EXCEPTIONS TO THE PROPOSAL FOR DECISION AND
ORDER

TO HONORABLE ADMINISTRATIVE LAW JUDGES CAROL WOOD AND TOM
WALSTON:

COMES NOW the Executive Director (ED) of the Texas Commission on Environmental
Quality (TCEQ or Commission) and files the Executive Director's Replies to Protestant's and
Office of Public Interest Counsel's Exceptions to the Administrative Law Judges' (ALJs)
Proposal for Decision (PFD) and Order and in support thereof shows the following:

I. INTRODUCTION/BACKGROUND

On February 21, 2006; the TCEQ Executive Director issued a preliminary decision and
the draft permit for the Oak Grove Steam Electric Station. On February 22, 2006, the applicant
requested this case be direct referred to the State Office of Administrative Hearings (SOAH) for
a contested case hearing on whether the application complies with all applicable statutory and
regulatory requirements. SOAH conducted the hearing from June 13 through June 20, 2006. On
August 23, 2006, the ALJs issued their PFD focusing chiefly on the technical practicability of
the equipment proposed to control the nitrogen oxides (NO_x) and Mercury emissions, finding
that the Applicant failed to prove by a preponderance of the evidence that its BACT proposals
for controlling NO_x and mercury emissions are technically practicable and would achieve the

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performance standards contained in the application and draft permit.¹ The parties filed Exceptions to the ALJ's Proposal for Decision on September 12, 2006. The Executive Director filed a Motion for Leave to File Supplemental Exceptions to the ALJ's PFD along with Supplemental Exceptions to the ALJ's PFD on September 13, 2006. The Office of General Counsel granted the ED's motion on September 18, 2006, extending the time for filing exceptions to five o'clock on September 13, 2006 to allow the Commission to consider the supplement. Exceptions to the PFD filed by the Protestant and Office of Public Interest Counsel are directed primarily toward the Applicant's compliance with the National Ambient Air Quality Standards (NAAQS) with regard to ozone demonstrations.

II. NATIONAL AMBIENT AIR QUALITY STANDARD ANALYSIS

The primary issue on which the Protestant and OPIC focused in their Exceptions to the PFD concerns the Applicant's compliance with Federal rules regarding a NAAQS demonstration.² Specifically, the Protestant and OPIC suggest that the applicant did not make the demonstration required by 40 CFR 52.21(k), which states:

The owner or operator of the proposed source or modification shall 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 any national ambient air quality standard in any air quality control region.

The TCEQ incorporated the requirements of 52.21(k) in 30 Texas Administrative Code (TAC) § 116.160(c)(2)(B).³ However, what the Protestant and OPIC fail to address is the difference in

¹ SOAH Proposal For Decision at 2.

² As noted in the PFD and prior filings, Oak Grove is also seeking a PSD permit which requires review under the federal rules (40 CFR Part 52). One component of this review is the NAAQS demonstration.

³ In 30 TAC § 116.160 (c)(2)(B), TCEQ adopts by reference the requirements of 40 CFR 52.21(k).

functional application of this rule to each of the six NAAQS pollutants.⁴ For four of the six pollutants, compliance with this rule is determined by whether the proposed emissions exceed the *de minimis* levels established by the TCEQ rules. The definition of *de minimis* for PSD permit applications is found in 30 TAC § 116.161, which states:

The commission may not issue a permit to any new major stationary source or major modification located in an area designated as attainment or unclassifiable, for any National Ambient Air Quality Standard (NAAQS) under FCAA § 107, if ambient air impacts from the proposed source would cause or contribute to a violation of any NAAQS. In order to obtain a permit, the source must reduce the impact of emissions upon air quality by obtaining sufficient emission reductions to eliminate the predicted exceedances of the NAAQS. *A major source or modification will be considered to cause or contribute to a violation of the NAAQS when the emissions of from such source or modification would at a minimum, exceed the de minimis levels specified in § 101.1 of this title (relating to Definitions) at any locality that is designated as nonattainment or is predicted to be nonattainment for the applicable standard. (emphasis added).*

The definition of *de minimis* is found in 30 TAC § 101.1(25) and is as follows:

De minimis impact-- A change in ground level concentration of an air contaminant as a result of the operation of any new major stationary source or the operation of any existing source that has undergone an major modification that does not exceed the following specified amounts.

Air Contaminant	Annual	24-Hour	8-Hour	3-Hour	1-Hour
Inhalable Particulate Matter (PM ₁₀)	1.0 µg/m ³	5 µg/m ³			
Sulfur Dioxide	1.0 µg/m ³	5 µg/m ³		25 µg/m ³	
Nitrogen Dioxide	1.0 µg/m ³				
Carbon Monoxide			.05 mg/m ³		2 mg/m ³

⁴ The EPA has established primary and secondary NAAQS for the following criteria pollutants: Sulfur Dioxide (SO₂) Carbon Monoxide (CO) Particulate Matter with a diameter less than 10 microns per cubic meter (PM₁₀) Nitrogen Dioxide (NO₂) Lead (Pb) and Ozone (O₃)

As can be seen from 30 TAC § 116.161, a major source causes or contributes to a violation of the NAAQS when "the emissions...would at a minimum, exceed the *de minimis* impact levels specified in § 101.1...at any location that is designated as nonattainment." Because ozone is not listed in 30 TAC § 101.1, 30 TAC § 116.161 has been interpreted by TCEQ staff to not prohibit an increase in ozone precursors which may impact an ozone nonattainment area.

The only two NAAQS criteria pollutants that do not have a *de minimis* level defined by state or federal rules are lead and ozone. For lead, compliance with the NAAQS, for New Source Review (NSR) permitting demonstrations, as with all of the other directly emitted NAAQS pollutants, is predicted through air dispersion modeling. Evidence in the record reflects that the concentrations for lead from the air dispersion modeling are one third of the NAAQS.⁵ It should also be noted that there are no areas in Texas that are nonattainment for lead.

As for ozone, because of its unique nature,⁶ and because a *de minimis* value has not been defined by rule as with other criteria pollutants, impacts are assessed through different means without reference to the *de minimis* value in 30 TAC § 101.1(25). For permitting purposes, an ozone impacts analysis is required in accordance with TCEQ policy and guidance.⁷ This guidance allows the applicant to apply a one-hour screening technique, commonly referred to as the Scheffe method, to accomplish the required NAAQS demonstration.⁸ Evidence in the record

⁵ According to the TCEQ Preliminary Determination Summary, the modeled results for PSD NAAQS for lead is 0.5 $\mu\text{g}/\text{m}^3$ versus the NAAQS standard of 1.5 $\mu\text{g}/\text{m}^3$. Oak Grove Ex 8 at 8.

⁶ Ozone, as indicated in prior pleadings, is not directly emitted from a source, but is created through a reaction between NOx and VOCs in the presence of sunlight.

⁷ Oak Grove Ex 25 at 2.

⁸ Executive Director Exhibit ED-1, page 12 of 17, lines 21-34.

reflects that the applicant used this screening method in accordance with TCEQ Air Quality Modeling Guidelines to demonstrate no significant increase of ozone is expected.⁹

In the PFD and post hearing briefings there has been some discussion of the cumulative effects and regional ozone formation. The TCEQ addresses these issues through the SIP planning process rather than NSR, which is the review applied to individual permits and the process described by the ED in this application. Emissions growth is also addressed in the SIP planning process through many tools, including emissions inventory requirements, population growth estimates, and specific permit forecasting for use in future case photochemical modeling, depending on what is appropriate for the source category and nonattainment area under review. It is important to note that the EPA has specifically stated that "NSR is not a [control] measure in and of itself to assure attainment of the NAAQS," but should be considered in SIP planning to assure that emissions from new sources will not interfere with attainment of the NAAQS.¹⁰

Similarly, photochemical modeling, as the OPIC suggests should be conducted by applicants, has not been historically used to predict the ozone contribution of a single source. Because of the regional nature of ozone formation, a single source would not be expected to cause an ozone exceedance. Also, EPA has no preferred model for determining regional impacts

⁹ *Id.* See also, Oak Grove Exhibit 40, page 36 of 40, response to questions 113 and 114. An applicant is only required to conduct analysis additional to the screening technique, including other methods of review such as detailed reactive plume modeling, if the source is: 1) *VOC dominated*, and 2) the resultant ozone concentration is 125 ppb or greater.⁹ However, evidence in the record indicates that the OGSES source is *NO_x dominated* and thus under the 1-hour screening technique, the analysis would not require further review. Transcript Vol. 5, page 755, lines 11-13.

¹⁰ Final Rule to Implement the 8-Hour Ozone National Ambient Air Quality Standard – Phase I, 69 Fed. Reg. 23951, 23986 (April 30, 2004). See Also 40 CFR Part 51, Appendix S which states: "For ozone, sources of volatile organic compounds, located outside a designated nonattainment area, will be presumed to have no significant impact on the designated nonattainment area... As noted above, the determination as to whether a source would cause or contribute to a violation of an NAAQS should be made as of the new source's start-up date."

of a single source because simulation of ozone formation and transport is a highly complex and resource intensive exercise. In addition, at this juncture, no modeling protocol, policy or guidance exists to inform applicants what to model, how to model or how to interpret the results.¹¹ Of particular concern is the difficulty of interpreting the results of any such modeling because: 1) there is no quantified *de minimis* level for ozone and, 2) the terms "cause or contribute to" have not been quantified or defined for purposes of ozone impacts analysis. Therefore, although the applicant provided rebuttal evidence, which included photochemical modeling of the proposed source, because there are no official guidelines or auditing procedures established to determine whether the information is valid or specifically what the results mean, at this time, use of photochemical modeling should not be required as a method for determining compliance with the NAAQS for individual permit applications.

In their closing, the OPIC suggests that the Commission adopt a Finding of Fact stating: "Emissions from OGSES will *measurably influence* ambient ozone concentrations in an area outside the local area, such as Austin and Dallas-Fort Worth."¹² Because the term "measurably influence" is not defined, inclusion of a finding of this nature is not supported the facts or by law. In addition, for the reasons stated above regarding the use of photochemical modeling for individual permits, and the lack of a quantifiable *de minimis* level for ozone, a finding such as the OPIC has suggested would fail to provide any relief to the trier of fact and would further muddy the waters of interpretation.

¹¹ Evidence admitted in this case establishes that the EPA has acknowledged this lack of guidance in stating that "EPA has not recommended a particular [modeling] technique, as there is no [Guidance on Air Quality Modeling] GAQM App.A. approved model for this application." Protestant's Exhibit P-25, page 10, lines 35-37.

¹² Emphasis added

III. CONCLUSION AND PRAYER

The Executive Director respectfully requests that the Commissioners adopt the ALJ's Proposal for Decision, and findings of fact and conclusions of law, and the exceptions filed by the ED and issue an order that, based on the totality of evidence available to the Commissioners, the draft permit contains adequate provisions to ensure compliance with all applicable statutory and regulatory requirements necessary for permit issuance.¹³ If the Commission finds that the emissions of the proposed facility will contravene the statutory provisions or the intent of the Clean Air Act, the Executive Director requests that in accordance with statutory regulations regarding preconstruction permitting, the Commission set out in a report to the applicant its specific objections to the submitted plans of the proposed facility.¹⁴

Respectfully Submitted,

Texas Commission on Environmental Quality

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¹³ TEX. HEALTH AND SAFETY CODE § 382.0518(b).

¹⁴ TEX. HEALTH AND SAFETY CODE § 382.0518(d).

CERTIFICATE OF SERVICE

I certify that true and correct copies of the foregoing Executive Director's Replies to Protestant's and Office of Public Interest Counsel's Exceptions to the Administrative Law Judges' (ALJs) Proposal for Decision (PFD) and Order have been served on the following in the manner indicated below on this 22nd day of September, 2006.

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