

Comparison of Methods for Estimating the NO_x Emission Impacts of Energy Efficiency and Renewable Energy Projects: Shreveport, Louisiana Case Study (Base Year of Data for Analysis – 2000)

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Technical Report
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Revised July 2005

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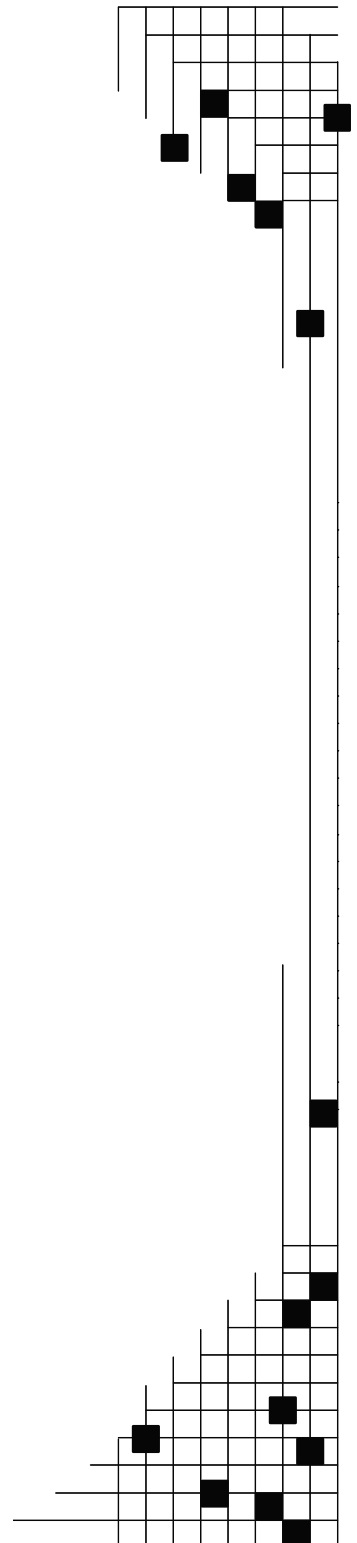
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*Not included in original report dated March 2005.
Other minor revisions have been included throughout this report.

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Abstract

Measures to increase the use of energy efficiency and renewable energy (EERE) technologies are among the many tools available to planners for improving local air quality. These technologies can both reduce generation from fossil fuel power plants and reduce their emissions. However, quantifying the electric-sector emissions reduction caused by given levels of EERE technology is complicated, since this calculation requires determining which power plants were offset by renewable energy generation or demand-side reductions. Until recently, there had been little discussion of what methods of quantification would be acceptable for the purposes of State Implementation Plan (SIP) submissions to the Environmental Protection Agency (USEPA). This situation began to change when USEPA issued general guidelines for including EERE projects in SIP proceedings (USEPA, 2004). That document endorsed the use of EERE projects in SIP submissions and laid the groundwork for quantification methods to be proposed. This paper aims to contribute to the ongoing discussion of these issues by comparing three alternative methods that were used in a recent SIP submission for the Shreveport-Bossier City Metropolitan Statistical Area Early Action Compact. That submission had been posted in the Federal Register, completed the public comment period, and was being formally adopted into the Louisiana SIP by USEPA at the time of publication.

This analysis suggests that the energy conservation measures that were submitted for the Shreveport SIP will reduce NO_x emissions on the order of 0.04 tons per day during the ozone season. Comparing three different methods for estimating this impact suggests that a simple approach, which uses an average of the emissions rates for nearby power plants drawn from the eGRID database, is precise and accurate enough to be used for very small projects like this one.

Introduction

Background

The Shreveport-Bossier City Metropolitan Statistical Area (MSA) in northwest Louisiana is in the process of taking several proactive measures to maintain and improve local ambient air quality. The primary ambient air pollutant of concern is ozone; hence measures are being taken to reduce the ozone precursors of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x). One innovative measure that the MSA has pursued is the indirect reduction of NO_x through the installation of energy conservation equipment in 33 municipal buildings. This paper outlines three different methodologies for calculating the power plant NO_x emissions reduced by implementing these permanent grid-connected energy efficiency projects in the Shreveport-Bossier City region of Louisiana.

The Shreveport-Bossier City MSA is comprised of Bossier, Caddo, and Webster Parishes in northwest Louisiana. The MSA has recorded ambient ozone concentrations that approach the maximum concentration permitted by the National Ambient Air Quality Standards (NAAQS) for 8-hour ozone concentrations. In order to ensure that air quality is maintained or even improved, the MSA has committed to implement several candidate control measures through an Early Action Compact (EAC) with USEPA. All EAC areas have voluntarily agreed to proactively reduce ozone precursors, thereby reducing ozone, earlier than required by the Clean Air Act (CAA) for the new 8-hour ozone NAAQS. One innovative NO_x reduction measure that the Shreveport-Bossier City MSA selected for inclusion in their EAC is a 20-year contract with Johnson Controls, Inc. for the purpose of installing and maintaining energy conservation equipment in 33 municipal buildings. Large energy efficiency projects such as this one will reduce end-use demand, which in turn reduces generation at nearby power plants, ultimately reducing their emissions.

The remainder of this paper proceeds as follows: The first section describes the results of the analysis, summarizing results from three different methods used to quantify the emissions reductions resulting from Shreveport's contract with Johnson Controls. The discussion then examines each of those methods in turn, and compares their results. The paper concludes with recommendations for the use of quantification methods in the SIP process. Appendix 1 presents a framework that may be useful in comparing different quantification methodologies and in developing better estimates of the uncertainty in their results. Appendix 2 is Shreveport's Early Action Compact Progress Report and Appendix 3 is the Federal Register Notice for this project.

Scope of the Three Methods

This analysis compares three different methods for estimating the impacts of the energy efficiency program, as described in the next section. These methods all estimate the marginal impact of the end-use demand reductions. That is, the reduced generation after the demand reductions is allocated across the power plants supplying the Shreveport area. After that allocation, the emissions reductions are estimated for each plant and summed to yield to total emissions reduction. The three approaches differ in how they allocate the generation reductions among different power plants.

These approaches do not consider the potential impact of the demand reductions on timing or technology of future power plant investments. Finally, none of the approaches considered here assess baselines or additionality—the question of whether some or all of the energy conservation measures included in Shreveport’s EAC submission would have occurred had the city not engaged Johnson Controls to undertake specific measures. These effects are beyond the scope of the current effort.

Summary of Results

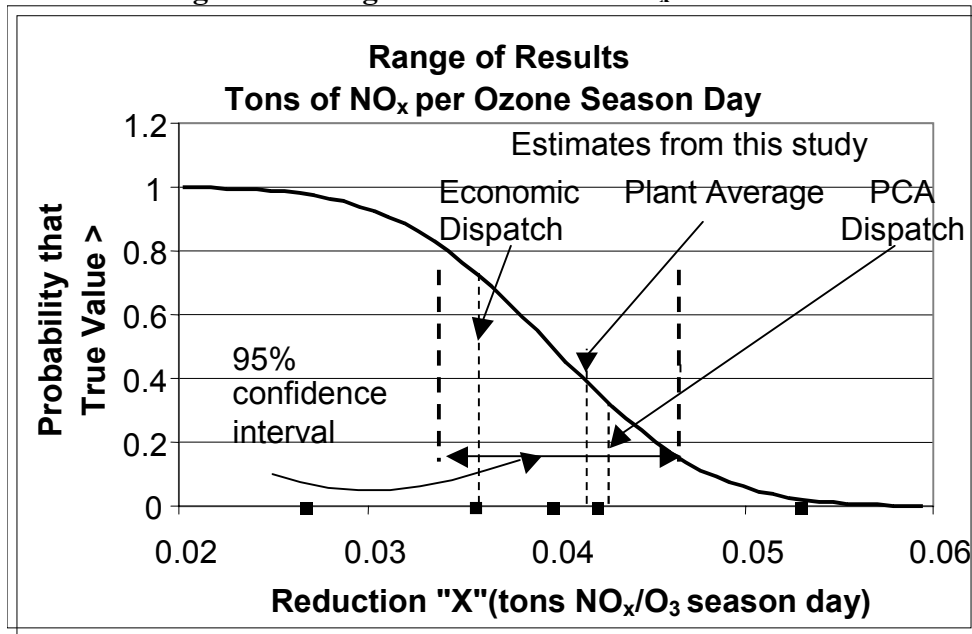
Table 1 compares the results of the different estimates. A calculation method developed by Art Diem at USEPA, which we call the “Power Control Area Dispatch Method,” and the calculation method developed by the LSU Center for Energy Studies (LSUCES), the “Economic Dispatch Method,” produced estimates of 0.042 and 0.036 tons per day respectively. A third method, the “Plant Average Method,” uses average emission rates for different subsets of power plants serving the Shreveport area, and suggests that the impact might range from 0.024 to 0.058 tons per ozone season day.

Table 1: Summary of Estimates	
Method	Result Tons/O₃ day
Economic Dispatch	0.036
Power Control Area Dispatch	0.042
Plant Average	0.033 (0.024 to 0.058) ¹

Figure 1 provides an estimate of the probabilities associated with these estimates, in the form of a curve tracing the probability that the true value is greater than the value shown on the x-axis. This estimate suggests that the value will be between 0.035 and 0.045 tons per day with a probability of 95 percent.

¹ The range of results from the plant average method is from 0.024 to 0.058 pounds per ozone-season day. The average of all the variants of this method, leaving out the US average figure, is 0.033 pounds per ozone-season day.

Figure 1: Range of Estimates of NO_x Reductions²



NO_x reductions in the range of the estimates shown in Figure 1 will assist Shreveport in meeting and maintaining compliance with the 8-Hour Ozone Standard. One of the suggestions from the following discussion is that relatively straightforward methods are adequate to characterize the impact of such small projects, while more complex methods may be required to assess the impacts of larger projects. Adopting this viewpoint could significantly lower the staff and technical resources needed by public agencies to quantify the emissions impact of EE and RE measures.

Methodologies Used to Develop Alternative Estimates

As mentioned above, each of the approaches considered takes a different path in identifying the generating units displaced by the electricity savings. Once the changes in generation in each plant are estimated, the emissions reduction is calculated by multiplying each of those changes by the appropriate NO_x emission factor. To some extent all three approaches use the emissions factors in the Environmental Protection Agency's eGRID air emissions database. The differences among them arise from their differing approaches to estimating the generation reduction of each plant.

² The confidence interval mentioned in the discussion of Figure 1 was estimated as follows. First, a single value for the plant average method was calculated as the average of all the estimates except for the U.S. National average. This was done so that the plant average method would have the same weight as the other two methods in the rest of the calculations. That estimate, along with those for the economic dispatch and power control area dispatch methods were then treated as three samples from a population of emissions estimates. Based on those three samples, we calculated the standard error of the mean, which estimates the standard deviation of an average of three samples from the population. Figure 1 uses a normal distribution with the mean equal to the average of the three samples and standard deviation equal to the standard error of the mean. The 95% percent confidence interval is estimated as the mean +/- two standard deviations. As discussed above, the result is a range of estimates from 0.035 to 0.045 tons per ozone season day.

Despite being subject to the limitations discussed in the previous section, all of the approaches described below do present a generalized estimate of the opportunities for increased energy efficiency to reduce overall power generation, air emissions, and greenhouse gas emissions. More sophisticated power market modeling approaches could develop more detailed, and arguably more accurate, results. Nevertheless, the results from these methods support the basic premise that more energy efficiency can lead to displaced generation, which in turn, can lead to lower emissions.

Ultimately, the State of Louisiana and USEPA determined which methodology should be adopted into the EAC due to their regulatory authority and accountability. The intent of this paper is to provide a neutral assessment of different estimation methods and critique the strengths and weaknesses of those methodologies. All methodologies were conducted in parallel and were provided the same amount of raw data. The base year for the analysis was calendar year 2000 and the guaranteed energy savings of the contract is 9,121,335 kWh/yr as detailed in the energy service contract between Johnson Controls and the City of Shreveport.

Economic Dispatch Method

David Dismukes and Dmitry Mesyanzhinov from the LSUCES developed an economic dispatch model of the combined American Electric Power (AEP) and Southwest Electric Power Company (SWEPCO) control area and applied it in this analysis. The model economically dispatches each of the AEP-SWEPCO generating facilities on an hour-to-hour basis. Under an optimal economic dispatch, generators are ranked, or “stacked” based upon their costs, with the lowest cost unit being utilized first, and the highest cost unit being utilized last. The LSUCES model simulated this economic dispatch for each hour of calendar year 2000.

Estimating the emissions reduction associated with energy efficiency measures follows a three-step approach. In the first step, a baseline economic dispatch case for the AEP-SWEPCO control area is developed in order to approximate the normal dispatch of the system. The second step develops a “change case” dispatch. In this instance, the “change case” is the introduction of energy efficiency measures. The third step is to calculate the difference between baseline and “change case,” which gives the plant-specific generation displaced by the energy efficiency measures, and calculate the air emission reduction associated with that displacement.

The data used in this analysis came from a variety of sources that included Federal Energy Regulatory Commission (FERC) Form 1s, Energy Information Administration Form EIA-411, RDI International Power Generation Database, Utility Data Institute, information provided by AEP-SWEPCO, and the eGRID database. The economic dispatch, or rank ordering, of facilities was based upon fuel costs as a measure of marginal costs. Per information provided by AEP-SWEPCO, imports to the system were assumed to be 15 percent of total load.

Power Control Area Marginal Dispatch Method

Art Diem from USEPA’s State and Local Capacity Building Branch has developed an approximate regional marginal dispatch model that assesses emissions reductions in two stages. First, this method estimates the percentage contribution of each relevant Power Control Area (PCA) to the electricity consumption of the region where the demand reductions occur. These

estimates are developed using data on the power flows between all the PCAs in both directions. Second, this method develops estimates for the share of generation from each power plant based on the total power generated in that PCA. Combining the two stages yields a percentage contribution to the target region for each power plant within all contributing PCA's.

Plant Average Method

This calculation approach relied strictly on the eGRID database using simple averages of the emissions coefficients of different sets of power plants from the calendar year 2000 data (Source: eGRID 2002PC). The generation reductions are assumed to be shared equally among all power plants in each set of plants. The following are the different sets of power plants for which emissions rates were averaged. Data was compiled for NO_x emissions on an annual average and for the ozone season. There may be other methods of dividing the eGRID data but these seemed the most appropriate for calculating emission reductions for Shreveport-Bossier City MSA.

- US National
- NERC Region Southwest Power Pool (SPP)
- NERC Sub-Region (SPP - South)
- State-level (Louisiana)
- State and primary power provider for Shreveport³(Louisiana and AEP)
- Electric Generating Company for Southwest Electric Power Company (SWEPCO)
- Power Control Area for American Electric Power (AEP West SPP/PCA)
- Local Plants in the City of Shreveport and the Caddo Parish
- Local Plants Supplying Shreveport⁴

The emissions rates were calculated directly from the eGRID database and multiplied by the guaranteed annual and monthly load reduction of the 20-year energy efficiency contract. Monthly load demand/reduction estimates are not currently available so the monthly load reduction was calculated by dividing the guaranteed annual reduction by twelve. Johnson Controls, Inc. has agreed to provide monthly load profile data, but the monthly load demand profiles were not available at the time of publication.

³ Per telephone discussions in February 2004 between RJ Robertson of the Southwestern Electric Power Company (SWEPCO) and Adam Chambers of NREL, American Electric Power (SWEPCO's parent company) supplies all of the electricity consumed by the city of Shreveport. This was confirmed through subsequent telephone conversations between David Dismukes of LSUCES, Louis McArthur of Louisiana DEP and Adam Chambers

⁴ Relies on LSUCES load distribution data and weighted eGRID emission factors.

Results

The emissions coefficients estimated here range from a low estimate of 2.0 lbs NO_x/megawatt-hour (MWh) to a high value of 4.6 lbs NO_x/MWh. The lowest emissions impact estimate considers only two natural gas fired plants within the Caddo Parish. The highest calculated values were ozone season estimates obtained from the average of the plants in the State of Louisiana. These extremes serve as upper and lower limits for all of the emission estimation methods in this study.

Using the upper and lower emission estimates mentioned above, we calculated the maximum and minimum emission reductions that could be achieved by the City of Shreveport and Johnson Controls, Inc. energy conservation contract. Relying on the firm contracting obligation of 9,121,335 kWh/yr and the upper and lower bound of 2.0 lbs/MWh and 4.6 lbs/MWh we estimated the lower and upper emission reduction bounds to be 8.9 and 21 tons of NO_x/yr respectively. (See Table 3.) In typical units used in SIP planning, these figures are equivalent to 0.024 - 0.058 ton/day.

More Detailed Comparison Across Methods

Table 2 gives the range of estimates developed for the emissions coefficients used in developing the ozone season impacts summarized in Table 1. In particular, it shows all the variants of the plant average method, and compares those values to the emissions coefficients of the two other methodologies.

The average of all emission factors for the ozone season, shown in Table 2, is 3.32 lbs/MWh. The average emission factor aligns most closely with the NERC Sub-Region emission factors calculation methodology and the PCA Marginal Dispatch Modeling Approach. Although these two are nearest the average emission value, all of the ozone-season emissions factors are within the range 3.3 ± 1.4 lbs/MWh.

Table 2: Comparison of NO_x Emissions Factors for Assessing EE Projects in the Shreveport Area

<u>Region</u>	<u>Annual NO_x Emissions (Tons/yr)</u>	<u>Average NO_x (Output Rate lbs/MWh)</u>	<u>O3 Season NO_x (Output Rate lbs/MWh)</u>
PLANT AVERAGE METHOD VARIANTS			
National	5644353.87	2.96	
O3 Season	2431268.00		2.92
NERC Region - SPP	354187.80	3.79	
O3 Season	164189.51		3.73
NERC Sub-Region – SPP South	219962.16	3.42	
O3 Season	103484.54		3.38
State – La.	118263.58	2.54	
O3 Season	55812.95		2.59
State and Power Provider – Louisiana & AEP	11501.24	4.57	
O3 Season	5107.37		4.63
Electric Generating Company – SWEPCO	40310.00	3.45	
O3 Season	18674.85		3.39
Power Control Area	73796.33	3.70	
O3 Season	35478.18		3.67
Local Plants Supplying Shreveport – AEP Information		3.72	
O3 Season			3.79
Local Plants in Shreveport and Caddo Parish	632.77	1.95	
O3 Season	488.07		1.95
POWER CONTROL AREA DISPATCH METHOD			
		3.47	
O3 Season			3.37
ECONOMIC DISPATCH METHOD			
	35,169	2.95	
O3 Season	17,967		2.85
AVERAGES		3.32	3.30

Alternative Assumptions

Making the assumption that *all* energy conservation will occur during the ozone season (which is not overly ambitious for Shreveport, LA)⁵, the emission reduction increases to a range of 0.049-0.12 ton/day (TPD). The total ozone season reduction using the midpoint of this range is shown in Table 3 below as the “least conservative” case.

Table 3: Average, Upper and Lower NO_x Emissions (Estimates)			
<u>Emissions Reduction</u>	<u>Annual Savings, tons</u>	<u>Ozone season, tons</u>	<u>Ozone season, tons/day</u>
Average (3.3 lbs/MWh)	15.05	1.25	0.04
Conservative Ef (1.95 lbs/MWh)	8.89	0.74	0.024
Least Conservative Ef (4.63 lbs/MWh)	21.12	1.76	0.058

The above emission reductions are relatively small in SIP planning terms, so the next question to be answered is “What quantity of energy savings is necessary to realize a 1 TPD reduction in NO_x emissions at the upper and lower bounds of the emission coefficients?” Achieving this emissions reduction would require an energy savings in the range of 430 – 1,000 MWh/day to reduce 1 ton of NO_x in the Shreveport – Bossier City area, an annual energy savings of 160 – 370 GWh. At the project level, this magnitude of energy savings is unlikely but an aggregation of several municipal projects, for example those arising in response to a policy, could achieve such a significant emissions reduction.

Other Quantifiable Ancillary Benefits of Energy Efficiency

In addition to the NO_x benefits realized by energy efficiency, there are other air pollutants and greenhouse gas emissions that have also been avoided. Avoided pollutants include sulfur dioxide, mercury, particulate matter, and carbon dioxide. In Table 4 we have estimated the emission reductions of SO₂, CO₂, and Hg through the same methodologies that we have quantified NO_x.

The annual SO₂, CO₂, and Hg emission benefits estimated below were calculated by relying on the averages in Table 4 and the previously mentioned contracted power savings of 9,121,335 kWh/yr. Other estimated emission reductions are:

- SO₂ – 41,228 lbs/yr or 20.6 tons/year
- CO₂ – 16,377,266 lbs/yr or 8,189 TPY
- Hg – 0.27 lbs/yr or 1.4 x 10⁻⁴ TPY

⁵ The energy efficiency project could, in principle, concentrate most or all of its impact on the ozone season by concentrating exclusively on air-conditioning loads, which occur almost entirely during the ozone season.

Particulate matter is more difficult to quantify accurately due to the broad variation in plant-specific control technologies, emission factors, and individual plant O & M. Qualitatively, there will be emission reductions in particulate matter of all fractions (TSP, PM₁₀, and PM_{2.5}) because fossil-fueled generation has particulate emissions and energy efficiency measures do not.

Table 4: Ancillary Benefits			
<u>Region</u>	<u>SO₂ Annual Reduction (Output Rate lbs/MWh)</u>	<u>CO₂ Annual Reduction (Output Rate lbs/MWh)</u>	<u>Hg Annual Reduction (Output Rate lbs/GWh)</u>
PLANT AVERAGE METHOD VARIANTS			
National	6.04	1392.49	0.0272
NERC Region – SPP	4.77	1959.93	0.0345
NERC Sub-Region – SPP South	4.27	1936.65	0.0322
State – La.	3.53	1386.28	0.0120
State and Power Provider – Louisiana & AEP	7.47	2135.38	0.0038
Electric Generating Company – SWEPCO	6.11	2180.52	0.0607
Power Control Area	4.53	1932.30	0.0408
Local Plants Supplying Shreveport - Contact AEP	6.79	2263.99	0.0607
Local Plants in Shreveport and Caddo Parish	0.33	1304.10	0.0000
POWER CONTROL AREA DISPATCH METHOD	1.36	1463.27	N/A
ECONOMIC DISPATCH METHOD	N/A	N/A	N/A
AVERAGES	4.52	1795.49	0.0302

Summary and Recommendations on Methods for Use in SIPs

This project represents an initial attempt to accurately quantify displaced emissions from grid-connected energy efficiency measures for SIP purposes. We applied three different methods to quantify displaced emissions of NO_x. We identified a lower bound of 0.024 tons per day and an upper bound of 0.058 tons per day, with 95 percent confidence that the value lies between 0.035 and 0.045 tons per day. We also estimated reductions of other pollutants, the ancillary benefits of a NO_x emissions reduction measure.

Based on the experience of this project, we recommend that SIP decision-makers may wish to consider the consistency among different estimation methods, and the size of the project in determining what types of analysis serve as sufficient basis for quantification of displaced emissions. In this project, the relatively narrow 95 percent confidence interval shows that the results are consistent across the different methods. The small project size also contributed to our judgment that this analysis is a sufficient basis for SIP decision makers to select the quantity of displaced emissions that will be attributed to these energy efficiency measures within the Louisiana SIP.

Assessing the permanence of the emissions reduction is another key issue. A high level of project certainty and permanence is required for SIP planning purposes. In the Shreveport project, there is a high level of certainty that permanent emissions benefits will result from this project due to the longevity and nature of the Performance Contract between Johnson Controls, Inc. and the City of Shreveport. The 20-year Performance Contract provides details of the expense, duration, and magnitude of the lighting system upgrades, mechanical system upgrades, control system upgrades, water conservation upgrades, and other miscellaneous upgrades, and guarantees the energy performance of the overall system.

Because this was one of the first projects to quantify EE emissions benefits for use in a SIP, there was some uncertainty as to how the estimation methods would compare. The comparison of the methods discussed above suggests that plant average methodology provides an adequate level of detail for calculating the emission benefits of small projects, and we suggest a threshold of 500 MWh/O₃ season day. The plant average approach provides a method that public agencies can use with at a modest cost in staff resources. Above this or another agreed-upon threshold, more accurate (and expensive) modeling approaches such as Power Control Area Marginal Dispatch Modeling Approach and the LSUCES Economic Dispatch Modeling Approach may be required.

The purpose of this paper has been to contribute to the published literature documenting case studies where energy efficiency and renewable energy has been used to improve ambient air quality per USEPA's *Guidance on State Implementation Plan (SIP) Credits for Emission Reductions from Electric-Sector Energy Efficiency and Renewable Energy Measures*⁶. Although the focus of this paper is on the quantification of emissions benefits, SIP submittals must also demonstrate enforceability, permanence, and emission reductions must be surplus to prevent double counting. Appendix 3 contains the May 12, 2005 Federal Register Notice for the measures proposed under the Early Action Compact SIP submittal.

⁶ http://www.epa.gov/ttn/oarpg/t1/memoranda/ereseerem_gd.pdf

Appendix 1: Unifying Framework for Comparing Methodologies

This section gives a more precise characterization of each method used to develop estimates.

Basic Framework

As mentioned, the three methods described here represent three different ways of estimating the fraction of the conserved electricity to be allocated to different power plants. That is, all three methods can be represented by Equation 1.

Equation 1

$$T = S \cdot \sum_k w_k E_k$$

where

T is the emission reduction

S is the energy savings,

w_k is the weight that gives the fraction of the energy savings allocated to the k-th plant,

E_k is the emission factor of the k-th plant

The summation is then the average emission factor of the plants offset by the electricity conservation measure. In principle, k can be thought of as ranging over all the power plants in the U.S. system, in which case some of the w_k may be zero. In all three methods, the plant emission factors are taken from the eGRID database.

Description of the Three Methods in Terms of this Framework

Power Control Area Marginal Dispatch Modeling Approach

This method proceeds in two stages. It first uses information about the exchanges of power between power control areas (PCAs) to determine the shares of the generation from each PCA in the electricity consumed in each PCA. This first stage of the analysis uses the shares of the generation of all PCA's in the PCA where the conservation occurs, say PCA_1 .

Equation 2

$$PCA_1 = \sum_k s_{k1} PCA_k$$

where s_{k1} gives the fraction of the consumption in PCA_1 that comes from the generation in PCA_k .

The second stage combines the shares s_{k1} with estimates of the probability that each plant will be on the margin, and thus be offset by reduced demand. This estimation procedure yields p_j , the probability that plant j is on the margin. The p_j and s_{k1} can then be combined to yield the weights w_k in equation 1:

Equation 3

$$w_k = \sum_j s_{j1} \sum_{i \in PCAj} p_i E_i$$

Plant Average Method

The plant average defines the weights w_k as follows

Equation 4

$$w_k = \frac{G_k}{\sum_k G_k}$$

where G_k is the annual energy output of the k -th plant. In this case, the w_k is simply the generation share. The variants on this method allow k to range across different subsets of US power plants.

Economic Dispatch Method

The LSUCES economic dispatch model is based upon the AEP-SWEPCO control area. The model economically dispatches each of the AEP-SWEPCO generating facilities on an hour-to-hour basis. Under an optimal economic dispatch, generators are essentially ranked, or “stacked” based upon their costs, with the lowest cost unit being utilized first, and the highest cost unit being utilized last. The LSUCES model conducted this dispatch for each hour of the year under a 2000 test year. The LSUCES economic dispatch model relies on load contributions (in percentages) from each plant supplying electricity to Shreveport. Load contribution data and the corresponding supply percentages that were consumed by the Shreveport Metropolitan Area were provided by AEP.

Appendix 2: Early Action Compact Progress Report

Shreveport-Bossier City Metropolitan Statistical Area

Early Action Compact Progress Report

December 31, 2003

Prepared for
U.S. Environmental Protection Agency
Region 6
Dallas, Texas

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1. Introduction

The U.S. Environmental Protection Agency (EPA) requires signatories of Early Action Compacts (EAC) to prepare a progress report every six months that describes the progress made to date against the EAC milestones. This progress report is based on the guidance presented in the *Memorandum from Lydia Wegman to EPA Air Directors in Regions III, IV, VI, and VIII, April 4, 2003*. According to this memorandum, the December 2003 progress report, at a minimum, should include the following:

- Document progress in developing the stakeholder process;
- Report progress on evaluating and selecting emission reduction measures for the local control strategy;
- Describe public outreach activities, and
- Provide and update on modeling/technical planning activities.

A brief description explaining the progress to date of each of these processes and activities is described below. A list of current stakeholders is included as Attachment A.

2. Stakeholders Process

In November 2000, an advisory committee, named the Greater Shreveport Clean Air Citizens Advisory Committee (CACAC), was established by the Mayor of Shreveport, consisting of representatives from various local stakeholder groups. The CACAC was tasked with assessing air quality issues in the Shreveport-Bossier City MSA, developing a set of "recommendations for maintaining and improving local air quality, with an emphasis on ozone issues," and reporting its findings to the local city and parish governing bodies. The members of the committee include representatives of the medical profession, academia, industry, utilities, the Greater Shreveport Chamber of Commerce, citizens groups, regional planning bodies, and local governments.

Since June 2003, the CACAC has met monthly from October through December. The purpose of these meetings has been to:

- Review the progress of the photochemical modeling analysis and to discuss the results of base case and 2007 future base case modeling, and
- Review and refine the list of local control measures developed in June 2003 based on the results of the photochemical modeling results.

In addition to CACAC participation, EPA and Department of Environmental Quality (DEQ) have also attended these monthly meetings.

3. Shreveport-Bossier City MSA Background Air Quality

The Shreveport-Bossier City MSA is currently in attainment for all pollutants with established NAAQS. In fact, as of 2002, the MSA has also achieved attainment with the new eight-hour average ozone NAAQS.

Eight-hour average ozone concentrations in the Shreveport-Bossier City MSA have improved over the past three years (2001-2003) as shown in Table 1. The MSA achieved attainment status for the eight-hour average ozone NAAQS in the summer of 2002. The preliminary monitoring data for 2003 shows a continued downward trend in the eight-hour average concentrations at both monitoring locations. The design values for eight-hour average ozone concentrations (defined as the three-year average of the annual 4th highest daily maximum eight-hour average ozone concentration) for the Dixie and Airport sites are 77 parts per billion (ppbv) and 79 ppbv, respectively, for the period ending in 2003.

Table 1. Eight-Hour Average Ozone Maximum Concentrations for 2001-2003

Location	Year	8-Hour Daily Max. Concentrations (ppbv)				Avg. 4 th Highest Conc. ¹	No. Days >=85 ppbv
		1 st	2 nd	3 rd	4 th		
Caddo (Dixie)	2001	85	83	78	77	84	1
	2002	80	79	77	75	79	0
	2003	86	82	80	80	77	1
Bossier (Airport)	2001	92	89	85	84	90	3
	2002	80	77	76	76	84	0
	2003	93	82	80	77	79	1

¹Average 4th highest concentration is the average of the annual fourth highest eight-hour ozone averages over a three-year period. Year given is the ending year of the three-year period for this summary statistic.

Data Source: Louisiana Department of Environmental Quality.

Source: Early Action Compact for the Shreveport-Bossier City Metropolitan Statistical Area Comprising Bossier, Caddo, and Webster Parishes, December 12, 2002 and Shreveport-Bossier City MSA Clean Air Citizens Advisory Committee Meeting, October 1, 2003.

4. Candidate Control Measures Progress

The objective of the EAC is to develop and implement local/regional emissions reduction strategies as may be necessary to ensure the Shreveport-Bossier City MSA will continue to meet the eight-hour average ozone NAAQS in the future. The Shreveport-Bossier City MSA is unique among most EAC participants in that it has been designated by EPA as in attainment for the eight-hour average ozone NAAQS¹. Therefore, unlike nonattainment areas, there are no defined levels of reductions necessary to achieve attainment. In addition, the photochemical modeling analysis results indicate the EAC MSA will be in attainment of the eight-hour ozone standard in 2007. The 2007 base case future modeling results indicate that eight-hour ozone

¹ Green, R.E., U.S. EPA, Regional Administrator (6RA), Letter to M. Foster, Jr., Governor of Louisiana, Louisiana Eight-hour Ozone NAAQS Attainment Status, December 3, 2003.

design values will be 79 ppb and 84 ppb at the Dixie and Airport monitoring stations, respectively. Both these design values are below the 85 ppb eight-hour ozone standard. Furthermore, the latest three years of eight-hour ozone monitoring data shows that the Shreveport-Bossier City MSA is currently well below the eight-hour ozone standard (See Section 3).²

In light of the area's current (as well as modeled future) attainment status, the MSA has had preliminary discussions with both EPA and DEQ regarding the appropriate approach to take in developing our Air Quality Improvements Plan (AQIP). The AQIP would include a list of control measures that the City and private industries will commit to implement by December 31, 2005, as discussed more fully below.

The AQIP would also contain a "contingency" provision, which would further require that the CACAC reconvene in the event that eight-hour ozone design value would reach a "trigger" value, such as 83 ppb, at some point in the future during the term of the EAC. DEQ is receptive to this approach. Should the ozone reduction trend reverse and we see an increase in eight-hour concentrations, 2007 control measures modeling simulations indicate that a 10 percent reduction in nitrogen oxide (NO_x) alone or NO_x and volatile organic compounds (VOCs) combined will reduce the eight-hour ozone design value by 2 ppb (82 ppb). The 2007 modeling results also indicate that NO_x emissions from area and non-road sources and elevated point sources are the largest local source-category contributors to the future ozone concentrations in the four-parish area. The CACAC would use this information as a starting point for developing and implementing new emissions control measures should such be needed. However, rather than commit to particular "contingency" control strategies at the outset of the AQIP, the CACAC believes it would be more prudent to keep all "contingency" control measure options open at this point so that the particular circumstances that trigger a contingency (as well as ongoing/updated emissions inventories and modeling analyses) are properly taken into account in the "contingency" control measure selection process.

In addition to the control measures agreed upon in the Ozone Flex Agreement and those federally mandated (e.g., low sulfur gasoline), the other control measures likely to be contained in the AQIP for implementation by the end of 2005 include:

- Installation of intelligent transportation systems to synchronize and improve traffic signal operations at 27 intersections by the end of 2003, with additional 35 intersections by the end of 2004.
- General Motors plant in Caddo Parish installed new VOC abatement system as part of their new product line in October 2003.

² The modeling analysis for 2007 is based upon the 2001 design values for the local monitoring sites, because the 2001 values cover the time period of the particular episodes which were selected for the modeling process. As mentioned, the design values for these sites have since decreased significantly, as shown in Table 1. However, even though the future case modeling analysis is based on the higher 2001 values rather than the more current (and significantly lower) values, the analysis still shows the area to be in attainment in 2007 (79 and 84 ppb at the Dixie and Airport sites, respectively).

- A local utility company has submitted a permit modification to reduce NO_x emissions from Prevention of Significant Deterioration (PSD) levels to below major source levels at a power plant located in the Shreveport-Bossier City area. The reduction of NO_x emissions permit commitments should be in place by the end of 2005.
- Installation of a gas collection system on the City of Shreveport's landfill. The landfill gas is piped to a local General Motors facility for use as boiler fuel. The pipeline began operations in November 2003.
- City of Shreveport plans to enter into a 20-year contract in 2004 with Johnson Controls, Inc. for the purpose of installing energy conservation equipment in 33 city buildings.

Table 2 presents a summary of these control measure commitments, preliminary estimates of their potential emissions reductions, implementation dates and geographic area where these measures will be applied. The City and its consultants will continue to work on quantifying emissions reductions for the recommended control measures commitments. Estimated emissions reductions will be included in the 2007 control measures and 2012 maintenance modeling analyses to be completed by late January 2004.

5. Public Outreach Programs

As reported in the June 30th Progress Report, the area's first "Clean Cities" program stakeholder meeting was held on June 24th, with over 45 representatives from local fleets and fuel providers in attendance. Officials from the U. S. Department of Energy and the Louisiana Department of Natural Resources gave presentations on alternative fuel vehicles and how the program works.

After the meeting, a planning group was formed consisting of nine volunteers from the stakeholder group, to create the structure of the coalition. Since then, three subcommittees have been formed (research & planning; public awareness; and fleets and fuel infrastructure), with the chairman of each, along with Wes Wyche, serving as the Steering Committee for the coalition. The committee has reached an agreement with the LSU-S Center for Business and Economic Research for the development of an inventory of all private and public fleets in the four-parish area (Bossier, Caddo, DeSoto and Webster). The Committee is also coordinating the purchase of a "hybrid" bus by the local bus transit authority (SPORTTRAN) through EPA's Supplemental Environmental Project (SEP) program, which will involve a major public awareness campaign to promote the use of alternative, cleaner-burning fuels in the local area.

As discussed earlier, the CACAC has continued to meet on a regular basis throughout the period, and these meetings are always open to the public. The City of Shreveport issued a press release on December 5 to announce the local attainment designation and discuss local planning efforts. Several radio interviews were given to the local news radio station during the period concerning the status of the local ozone program and the EAC.

**Table 2
Shreveport-Bossier City MSA Early Action Compact
Proposed Local Control Measures Commitments**

Id. No.	Control Measure Category	Proposed Control Measures	Potential Emission Reductions	Implementation Date	Geographic Area
A. Public Awareness Activities					
A-1*	Ozone Awareness Program	This program will build on efforts already undertaken locally, which have included media events, stakeholder meetings, and development of air quality pages included in the City of Shreveport web site. Web site that features information on local air quality, local measures being taken to maintain and improve air quality, the Ozone Action Program, health and welfare effects of ozone pollution, the Air Quality Index, ozone forecasting, and many relevant links that will include EPA, DEQ and DOE Clean Cities web sites.	--	May 2003	Caddo, Bossier and Webster Parishes
A-2*	Ozone Action Program	The Shreveport-Bossier City Ozone Action Program (OAP) is a voluntary ozone reduction and public education program administered on a seasonal basis (May - September) by the City of Shreveport Department of Operational Services through the Clean Air Citizens Advisory Committee (CACAC). The program will consist of two basic facets - a seasonal facet, where participants use measures/actions through the ozone season; and an episodic facet, where participants employ measures or take actions on days predicted to have elevated ozone levels (i.e., Ozone Action Days).	--	May 2003	Caddo, Bossier and Webster Parishes
B. Commute/Transportation Options					
B-1	Traffic signals synchronization	NOx and VOC: Synchronizing or improving traffic signal operations reduces vehicle delay and congestion, which reduces air pollution, fuel consumption, and vehicle operating costs, and improving traffic flow through intersections. Since 2000, 27 intersections have been upgraded with improved traffic signal operations, and another 35 intersections are planned to be upgraded in 2004.	NOx: 0.002 tons/day ¹	2002-2004	Caddo and Bossier Parishes
C. Stationary Source Measures					
C-1*	Specific emissions reduction commitments from local commercial/industrial facilities	Contact major industrial sources of emissions in the Shreveport-Bossier City MSA to determine if there are any new emission control measures that any of these sources might formally agree to implement as contingency measures in the event of a violation of the eight-hour average ozone NAAQS. If necessary, establish new emission control measures that will be enforced in the event of a violation of the eight-hour average ozone NAAQS.	--	Contingent upon exceeding 8-hour ozone standard	Caddo, Bossier and Webster Parishes
C-2	General Motors New Product Line Abatement System	VOCs: On October 7, 2003, General Motors added a new abatement system as part of their new product line. It is anticipated that VOC emissions should be reduced by 400 to 500 tons per year.	VOC: 1.1 - 1.4 tons/day	2003-2005	Caddo Parish
C-3	Local Utility Company Modifications	NOx: A permit modification was submitted to reduce emissions from above Prevention of Significant Deterioration (PSD) levels to below major source levels at a power plant located in the Shreveport-Bossier City area.	NOx: 2.56 tons/day VOC: 0.135 tons/day CO: 1.14 tons/day	2005	Caddo and Bossier Parishes
D. Mobile Source Measures					
D-1*	Low Sulfur Gasoline	NOx: The Federal Tier 2 program will require low sulfur gasoline (30 ppm) by calendar year 2006, which will reduce NOx.	NOx: 5.7-11% reduction ¹	2006	Caddo, Bossier and Webster Parishes

**Table 2
Shreveport-Bossier City MSA Early Action Compact
Proposed Local Control Measures Commitments**

Id. No.	Control Measure Category	Proposed Control Measures	Potential Emission Reductions	Implementation Date	Geographic Area
D-2	Alternative Fueled Buses	NOx and VOC: Fuels other than gasoline or diesel, including compressed or liquified natural gas, methanol, ethanol, propane and electricity. City of Shreveport plans to purchase a hybrid (diesel and electric) bus.	NOx: 0.008 tons/day VOC: 0.011tons/day ²	2005	Caddo Parish
D-3*	DOE Clean Cities Program	Shreveport-Bossier City MSA participates Clean Cities Program sponsored by the U.S. Department of Energy (DOE). The Clean Cities program supports public and private partnerships that deploy alternative fuel vehicles (AFVs) and build supporting infrastructure.	NOx: 0.00008 tons/day VOC: 0.00008 tons/day ²	2003	Caddo and Bossier Parishes
E. Other Measures					
E-1	Landfill Gas Resource Project	VOC: City of Shreveport has installed a gas collection system on the City landfill. The landfill gas is piped to the local General Motors (GM) plant for use as boiler fuel. The pipeline to GM began operations in November 2003.	To be determined ⁴	November 2003	Caddo Parish
E-2	Energy conservation programs	NOx: City of Shreveport has entered into a 20-year contract in 2003 with Johnson's Controls, Inc., for the purpose of installing energy conservation equipment in 33 city buildings. Energy conservation measures not only decrease NOx emissions, but also can have significant reductions in other pollutants, such as sulfur dioxide, VOCs, air toxics, and carbon dioxide. These various efficiency measures when combined have the potential to add up to significant energy savings and emissions reductions.	To be determined ⁴	2004	Caddo Parish

Note: * Denotes those control measures recommended in the Ozone Flex Agreement for the Shreveport-Bossier City MSA.

Sources:

¹Draft Report Emission Inventories and Potential Emission Control Strategies For Ozone Early Action Compact Areas in Tennessee, The University of Tennessee Department of Civil and Environmental Engineering, April 13, 2003.

²CMAQ = Summary Review of Costs and Emission Reductions for 24 CMAQ (Congestion Mitigation and Air Quality) Projects, September 15, 1999.

³EPA 1999 = U.S. EPA, EPA's Program for Cleaner Vehicles and Cleaner Gasoline, EPA 420-F-99-1, December 1999.

⁴ CACAC is currently working with the Louisiana Department of Natural Resources to quantify expected emission reductions from these measures.

6. EAC Milestones Progress

The Shreveport-Bossier City MSA is committed to achieving the milestones and requirements of the EAC. The City of Shreveport hired Camp Dresser & McKee, Inc. (CDM) and SAI/ICF Consulting (SAI) in April 2003 to complete the technical analyses, and help in the preparation of plans, reports and other milestone submittals. Since the June 30th Progress Report, CDM and SAI worked with EPA to obtain approval of the Quality Assurance Project Plan and Photochemical Modeling Protocol (QAPP) that was submitted to U.S. EPA Region VI on May 30, 2003. The approval process took an additional six to eight weeks longer than anticipated; however, the base case and future base case emissions inventory and modeling are complete and initial future control modeling has also been performed. As mentioned, the MSA has been designated as an attainment area for the 8 hour standard, and modeling is demonstrating continued attainment through 2007 with no additional local controls being imposed. Nonetheless, it is anticipated that some additional future control measure modeling will be performed in January, along with the 2012 maintenance modeling, in order to more definitively quantify the effects of any measures that may be listed in the AQIP.

ATTACHMENT A LIST OF STAKEHOLDERS

City of Shreveport
City of Bossier City
Caddo Parish
Bossier Parish
Webster Parish

CACAC members:

Dr. Peter Boggs (local allergy/asthma specialist)
David Burroughs (General Motors)
Brian Bond (AEP-SWEPCO, local electric utility)
Laura Guthrie (Centerpoint Energy, local gas utility)
Dr. Kimberly Jones (LSU School of Medicine, Dept. of Pediatrics)
Wes Wyche (City of Shreveport)
Kent Rogers (Northwest Louisiana Council of Governments)
Bob Molloy (interested citizen)
Lola May (Queensborough Neighborhood Association)
Randy Lucky (Caddo Parish Commission)
Bill Altimus (Bossier Parish Police Jury)
Lorenz Walker (City of Bossier City)

Ozone Action Plan Participants:

AEP – SWEPCO
Barksdale Air Force Base
BASF Corporation
Beaird Industries
Bossier Parish School Board
Caddo Parish School Board
Centenary College
Centerpoint Energy
City of Bossier City
City of Shreveport
Doctors Hospital
Eagle Distributing
Frymaster Corp.
General Electric Co.
General Motors
International Paper
Kansas City Southern Railroad
La. Department of Environmental Quality (NW Regional Office)
Libbey Glass
LSU – Shreveport
PrintPack, Inc.
SPORTRAN (Shreveport Transit Management)

Appendix 3: Federal Register Notice

25000

Federal Register / Vol. 70, No. 91 / Thursday, May 12, 2005 / Proposed Rules

PART 1—INCOME TAXES

Authority: 26 U.S.C. 7805 * * * Section 1.935-1 also issued under 26 U.S.C. 7654(e). * * *

§ 1.934-1 [Corrected]

2. On page 18951, column 2, § 1.934-1, Par. 15, line 2, the language “is amended as follows:” is corrected to read “as follows:”.

§ 1.935-1 [Corrected]

3. On page 18951, column 3, § 1.935-1, line 3, the language “through (3) is the same as the text of” is corrected to read “through (a)(3) is the same as the text of”.

4. On page 18952, column 3, in the signature block, the language “Deputy Commissioner for Services and” is corrected to read “Acting Deputy Commissioner for Services and”.

Cynthia Grigsby,

Acting Chief, Publications and Regulations Branch, Legal Processing Division, Associate Chief Counsel, (Procedures and Administration).

[FR Doc. 05-9422 Filed 5-11-05; 8:45 am]

BILLING CODE 4830-01-P

DEPARTMENT OF THE TREASURY

Alcohol and Tobacco Tax and Trade Bureau

27 CFR Part 9

[Notice No. 42; Re: Notice No. 34]

RIN: 1513-AA64

Proposed Fort Ross-Seaview Viticultural Area (2003R-191T); Comment Period Extension

AGENCY: Alcohol and Tobacco Tax and Trade Bureau, Treasury.

ACTION: Notice of proposed rulemaking; extension of comment period.

SUMMARY: In response to an industry member request, the Alcohol and Tobacco Tax and Trade Bureau extends the comment period for Notice No. 34, Proposed Fort Ross-Seaview Viticultural Area, a notice of proposed rulemaking published in the **Federal Register** on March 8, 2005, for an additional 30 days.

DATES: Written comments must be received on or before June 8, 2005.

ADDRESSES: You may send comments to any of the following addresses:

• Chief, Regulations and Procedures Division, Alcohol and Tobacco Tax and Trade Bureau, Attn: Notice No. 29, P.O. Box 14412, Washington, DC 20044-4412.

- 202-927-8525 (facsimile).
- nprm@ttb.gov (e-mail).
- <http://www.ttb.gov/alcohol/rules/index.htm>. An online comment form is posted with this notice on our Web site.
- <http://www.regulations.gov> (Federal e-rulemaking portal; follow instructions for submitting comments).

You may view copies of this extension notice, Notice No. 34, the petition, the appropriate maps, and any comments we receive on Notice No. 34 by appointment at the TTB Library, 1310 G Street, NW., Washington, DC 20220. To make an appointment, call 202-927-2400. You may also access copies of this extension notice, Notice No. 34, and the related comments online at <http://www.ttb.gov/alcohol/rules/index.htm>.

FOR FURTHER INFORMATION CONTACT: N. A. Sutton, Regulations and Procedures Division, Alcohol and Tobacco Tax and Trade Bureau, 925 Lakeville St., No. 158, Petaluma, CA 94952; telephone 415-271-1254.

SUPPLEMENTARY INFORMATION: Patrick Shabram, on his own behalf and on behalf of David Hirsch of Hirsch Vineyards, submitted a petition to establish the “Fort Ross-Seaview” American viticultural area in western Sonoma County, California. Located near the Pacific Ocean about 65 miles north of San Francisco, the proposed Fort Ross-Seaview viticultural area is within the existing North Coast (27 CFR 9.30) and Sonoma Coast (27 CFR 9.116) viticultural areas. The petitioner states that the proposed area currently has 18 commercial vineyards on 506 acres.

In Notice No. 34, published in the **Federal Register** (70 FR 11174) on Tuesday, March 8, 2005, we described the petitioner’s rationale for the proposed establishment and requested comments on the proposal on or before May 9, 2005.

On May 3, 2005, we received a request from Brice Cutrer Jones to extend the comment period for Notice No. 34. Mr. Jones owns two vineyards close to the proposed Fort Ross-Seaview viticultural area. In his comment, Mr. Jones states that the proposed Ft. Ross-Seaview viticultural area boundary unjustifiably excludes nearby parcels subject to the same environmental influences, and he requested at least 30 additional days to comment on Notice No. 34.

In response to this request, we extend the comment period for Notice No. 34 an additional 30 days. Therefore, comments on Notice No. 34 are now due on or before June 8, 2005.

Drafting Information

Nancy Sutton of the Regulations and Procedures Division drafted this notice.

List of Subjects in 27 CFR Part 9

Wine.

Authority and Issuance

This notice is issued under the authority of 27 U.S.C. 205.

Signed: May 9, 2005.

John J. Manfreda,
Administrator.

[FR Doc. 05-9545 Filed 5-10-05; 8:57 am]

BILLING CODE 4810-31-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[R06-OAR-2005-LA-0001; FRL-7910-7]

Approval and Promulgation of Air Quality Implementation Plans; Louisiana; Attainment Demonstration for the Shreveport-Bossier City Early Action Compact Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The EPA is proposing to approve revisions to the State Implementation Plan (SIP) submitted by the Louisiana Department of Environmental Quality (LDEQ) on December 28, 2004. The proposed revisions will incorporate the Shreveport-Bossier City Metropolitan Statistical Area (MSA) Early Action Compact (EAC) Air Quality Improvement Plan (AQIP) into the Louisiana SIP. EPA is proposing approval of the photochemical modeling in support of the attainment demonstration of the 8-hour ozone standard within the Shreveport-Bossier City EAC area and is proposing approval of the associated control measures. EPA is proposing these actions as a strengthening of the SIP in accordance with the requirements of sections 110 and 116 of the Federal Clean Air Act (the Act). The revisions will contribute to improvement in air quality and continued attainment of the 8-hour National Ambient Air Quality Standard (NAAQS) for ozone.

DATES: Comments must be received on or before June 13, 2005.

ADDRESSES: Submit comments, identified by Regional Material in eDocket (RME) ID No. R06-OAR-2005-LA-0001, by one of the following methods:

Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.

Agency Web site: <http://docket.epa.gov/rmepub/>. Regional Material in eDocket (RME), EPA's electronic public docket and comment system, is EPA's preferred method for receiving comments. Once in the system, select "quick search," then key in the appropriate RME Docket identification number. Follow the on-line instructions for submitting comments.

U.S. EPA Region 6 "Contact Us" Web site: <http://epa.gov/region6/r6comment.htm>. Please click on "6PD" (Multimedia) and select "Air" before submitting comments.

E-mail: Mr. Thomas Diggs at diggs.thomas@epa.gov. Please also cc the person listed in the **FOR FURTHER INFORMATION CONTACT** section below.

Fax: Mr. Thomas Diggs, Chief, Air Planning Section (6PD-L), at fax number 214-665-7263.

Mail: Mr. Thomas Diggs, Chief, Air Planning Section (6PD-L), Environmental Protection Agency, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733.

Hand or Courier Delivery: Mr. Thomas Diggs, Chief, Air Planning Section (6PD-L), Environmental Protection Agency, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733. Such deliveries are accepted only between the hours of 8 a.m. and 4 p.m. weekdays except for legal holidays. Special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Regional Material in eDocket (RME) ID No. R06-OAR-2005-LA-0001. The EPA's policy is that all comments received will be included in the public file without change, and may be made available online at <http://docket.epa.gov/rmepub/>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information the disclosure of which is restricted by statute. Do not submit information through Regional Material in eDocket (RME), <http://www.regulations.gov>, or e-mail if you believe that it is CBI or otherwise protected from disclosure.

The EPA RME Web site and the federal <http://www.regulations.gov> are "anonymous access" systems, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through RME or <http://www.regulations.gov>, your e-mail address will be automatically captured

and included as part of the comment that is placed in the public file and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the electronic docket are listed in the Regional Material in eDocket (RME) index at <http://docket.epa.gov/rmepub/>. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in RME or in the official file which is available at the Air Planning Section (6PD-L), Environmental Protection Agency, 1445 Ross Avenue, Suite 700, Dallas, Texas 75202-2733. The file will be made available by appointment for public inspection in the Region 6 FOIA Review Room between the hours of 8:30 a.m. and 4:30 p.m. weekdays except for legal holidays. Contact the person listed in the **FOR FURTHER INFORMATION CONTACT** paragraph below or Mr. Bill Deese at (214) 665-7253 to make an appointment. If possible, please make the appointment at least two working days in advance of your visit. There will be a 15 cents per page fee for making photocopies of documents. On the day of the visit, please check in at the EPA Region 6 reception area at 1445 Ross Avenue, Suite 700, Dallas, Texas.

The State submittal is also available for public inspection at the State Air Agency listed below during official business hours by appointment:

Louisiana Department of Environmental Quality, Office of Environmental Assessment, Airshed Planning Division, SIP Development Section, 602 North Fifth Street, Baton Rouge, Louisiana 70802.

FOR FURTHER INFORMATION CONTACT: Clovis Steib, III, Air Program Branch (6PD), EPA Region 6, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733, telephone (214) 665-7566, steib.clovis@epa.gov, or Carrie Paige, Air Planning Section (6PD-L), EPA Region

6, 1445 Ross Avenue, Dallas, Texas 75202-2733, telephone (214) 665-6521, paige.carrie@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document, wherever "we," "our," and "us" is used, we mean EPA.

Outline

- I. What action are we proposing?
- II. What is an EAC?
- III. What is a SIP?
- IV. What is the content of the Shreveport-Bossier City EAC attainment demonstration?
- V. Why are we proposing to approve this EAC SIP submittal?
- VI. What measures are we proposing to approve in this EAC SIP submittal?
- VII. What happens if the area does not meet the EAC milestones?
- VIII. Proposed Action
- IX. Statutory and Executive Order Reviews

I. What Action Are We Proposing?

Today we are proposing to approve a revision to the Louisiana SIP, under sections 110 and 116 of the Act, submitted to EPA by the LDEQ on December 28, 2004. The revision demonstrates attainment of the 8-hour ozone NAAQS within the Shreveport-Bossier City MSA and requests approval of the Shreveport-Bossier City EAC AQIP into the Louisiana SIP. The EAC is a voluntary agreement between the LDEQ, the Greater Shreveport Clean Air Citizens Advisory Committee (CACAC) and EPA. Within this agreement, CACAC represents the three parishes of Caddo, Bossier and Webster and the cities of Shreveport and Bossier City. The intent of this agreement, known as the Shreveport-Bossier City EAC or the EAC, is to reduce ozone pollution and thereby maintain the 8-hour ozone standard. The Shreveport-Bossier City EAC AQIP is the official attainment/maintenance plan for the MSA which was developed under the EAC program. LDEQ has submitted the AQIP to EPA for approval as a revision to the Louisiana SIP. The revision demonstrates, with photochemical modeling, attainment and maintenance of the 8-hour ozone standard in the Shreveport-Bossier City EAC area and includes local control measures. The Shreveport-Bossier City AQIP also sets forth a schedule to develop additional technical information about local ozone pollution, and adopt and implement emissions control measures to ensure that the Shreveport-Bossier City MSA achieves compliance with the 8-hour ozone standard by December 31, 2007. Section VI of this rulemaking describes the control measures that will be implemented within the Shreveport-Bossier City EAC area.

The monitored ozone concentrations in the Shreveport-Bossier City EAC area have not exceeded the federal 1-hour ozone standard. The EPA designated the Shreveport-Bossier City EAC area as attainment for the 8-hour ozone standard on April 15, 2004 (69 FR 23858). The LDEQ has submitted these revisions to the SIP, with additional control measures, as preventive and progressive measures to avoid a future violation and to ensure long term maintenance of the 8-hour ozone standard within the affected area.

II. What Is an EAC?

The Early Action Compact program was developed to allow communities an opportunity to meet the new stricter 8-hour ozone air quality standard sooner than the Act requires for reducing ground level ozone. The program was designed for areas that approach or monitor exceedances of the 8-hour standard, but are in attainment for the 1-hour ozone standard. The compact is a voluntary agreement between local communities, State air quality officials and EPA, which allows participating State and local entities to make decisions that will accelerate meeting the new 8-hour standard using locally tailored pollution controls instead of federally mandated measures. Early planning and early implementation of control measures that improve air quality will likely accelerate protection of public health. The EPA believes this program provides an incentive for early planning, early implementation, and early reductions of emissions leading to expeditious attainment and maintenance of the 8-hour ozone standard.

Communities with EACs will have plans in place to reduce air pollution at least two years earlier than required by the Act. In December 2002, a number of States submitted compact agreements pledging to reduce emissions earlier than required by the Act for compliance with the 8-hour ozone standard. These States and local communities had to meet specific criteria and agreed to meet certain milestones for development and implementation of the compact. States with communities participating in the EAC program had to submit plans for meeting the 8-hour ozone standard by December 31, 2004, rather than June 15, 2007, the deadline for other areas not meeting the standard. The EAC program required communities to develop and implement air pollution control strategies, account for emissions growth and demonstrate their attainment and maintenance of the 8-hour ozone standard. Areas that adopted EACs must establish a clean air action plan, meet

other established milestones and attain the 8-hr ozone standard by December 31, 2007. Greater details of the EAC program are explained in EPA's December 16, 2003 (68 FR 70108) proposed **Federal Register** notice entitled "Deferral of Effective Date of Nonattainment Designations for 8-hour Ozone National Ambient Air Quality Standards for Early Action Compact Areas."

On April 15, 2004, EPA designated all areas for the 8-hour ozone standard. The EPA deferred the effective date of nonattainment designations for EAC areas that were violating the 8-hour standard, but continue to meet the compact milestones. Details of this deferral were announced on April 15, 2004 as part of the Clean Air Rules of 2004, and published in the **Federal Register** on April 30, 2004 in the notice entitled "Air Quality Designations and Classifications for the 8-Hour Ozone National Ambient Air Quality Standards; Early Action Compact Areas with Deferred Effective Dates" (69 FR 23858).

III. What Is a SIP?

The SIP is a set of air pollution regulations and control strategies developed by the state, to ensure that the state meets the National Ambient Air Quality Standards (NAAQS). These ambient standards are established under section 109 of the Act and they currently address six criteria pollutants: carbon monoxide, nitrogen dioxide, ozone, lead, particulate matter, and sulfur dioxide. The SIP is required by Section 110 of the Act. These SIPs can be extensive, containing state regulations or other enforceable documents and supporting information such as emission inventories, monitoring networks, and modeling demonstrations.

IV. What Is the Content of the Shreveport-Bossier City EAC Attainment Demonstration?

The attainment demonstration contains analyses which estimate whether selected emissions reductions will result in ambient concentrations that meet the 8-hour ozone standard in the Shreveport-Bossier City EAC area, and an identified set of measures which will result in the required emissions reductions. The demonstration incorporates the effects of population and industry growth, as well as national, state and local control measures required to be in place by 2007 and 2012. The modeled attainment test is passed if all resulting predicted future design values are less than 85 parts per billion (ppb). The design value

is the three year average of the annual fourth highest 8-hour ozone readings.

In support of this proposal, the CACAC and LDEQ conducted an ozone photochemical modeling study developed for the Shreveport-Bossier City EAC area. This study meets EPA's modeling requirements and guidelines, including such items as the base year emissions inventory development, the growth rate projections, and the performance of the model. See our Technical Support Document (TSD) for detailed information on this modeling study.

The modeling submitted in support of this proposal simulated the complex processes leading to high ozone in the Shreveport-Bossier City EAC area. The modeling results indicate that, despite the area's expected growth in population between 2007 and 2012, the expected emission reductions from both the EAC AQIP measures and national measures provide improvement in ozone air quality and maintenance of the 8-hour standard in the EAC area. The modeling results demonstrate that the Shreveport-Bossier City EAC area would continue in attainment with the 8-hour ozone NAAQS in 2007 and 2012. The modeling predicts a maximum ozone design value of 84 ppb in 2007 and 83 ppb in 2012, both of which are below the 8-hour ozone standard of 85 ppb. The EPA is proposing to approve the LDEQ's 8-hour ozone attainment demonstration and AQIP, including the control measures listed in section VI, for the Shreveport-Bossier City EAC area.

V. Why Are We Proposing To Approve This EAC SIP Submittal?

We are proposing to approve this EAC SIP submittal because implementation of the requirements in this EAC AQIP will help ensure the Shreveport-Bossier City EAC area's compliance with the 8-hour ozone standard by December 13, 2007 and maintenance of that standard through 2012. We have reviewed the submittals and determined that they are consistent with the requirements of the Act, EPA's policy, and the EAC protocol. Our Technical Support Document (TSD) contains detailed information concerning this rulemaking action.

We are proposing approval of the EAC AQIP as a strengthening of the SIP which will yield improvements in air quality to the Shreveport-Bossier City EAC communities. EPA has determined that the State and local area have fulfilled the milestones and obligations of the EAC Program to date.

VI. What Measures Are Included in This EAC SIP Submittal?

To help achieve attainment, the CACAC developed a list of control measures for the EAC that the City of Shreveport and local, private industries have committed to implement by December 31, 2005. These control measures were adopted by the State, are quantifiable, permanent, and will provide reductions in nitrogen oxides (NO_x) and volatile organic compounds (VOCs) in the Shreveport-Bossier City EAC area; NO_x and VOCs are precursors to and aid in the formation of ozone.

Local control measures in the EAC AQIP have been included in the model runs and are predicted to provide the following reductions: (1) Installation of an intelligent transportation system in Shreveport, projected to reduce NO_x by 0.01 tons per day (tpd) and VOCs by 0.048 tpd. (2) A permit modification for a VOC abatement system, installed at the General Motors plant in Caddo Parish as part of their new product line and is projected to reduce VOCs by 1.37 tpd. This is codified in Title V permit 0500-0047-V1, dated 7/31/2001 and PSD permit PSD-LA-646, dated 3/24/2000, issued by the LDEQ and submitted as part of the AQIP. (3) A permit modification at Center Point Energy in Bossier Parish is projected to reduce NO_x by 2.56 tpd and VOCs by 0.014 tpd. The plant serves to remove natural gas liquids from gas streams for commercial purposes and an upgrade in the separation process will reduce the need for a significant number of process equipment and corresponding emissions from these units. The permit (0400-00006-02) was provided in the EAC SIP submittal. (4) The installation of energy conservation equipment in 33 city buildings throughout the EAC area is estimated to reduce NO_x by 0.041 tpd. This measure is consistent with EPA's August 5, 2004 Guidance on SIP Credits for Emission Reductions from Electric-Sector Energy Efficiency and Renewable Energy Measures and EPA's September 2004 guidance on Incorporating Emerging and Voluntary Measures in a SIP. (5) The purchase and use of one hybrid electric bus in Shreveport is projected to reduce NO_x by 0.002 tpd.

These local control measures are described in detail in the TSD and will be incorporated by reference in the Code of Federal Regulations in the final approval action. Detailed information is necessary for emission reduction measures in the SIP to ensure that they are specific and enforceable as required by the Act and the EAC protocol and reflected in our policy. The description of these emission reduction measures

includes the identification of each project, location, length of each project (if applicable), a brief project description, implementation date and emissions reductions for both VOCs and NO_x.

Though not quantified and thus not included in the modeling, installation and use of a gas collection system on Shreveport's municipal solid waste landfill is also expected to provide emission reductions. We are proposing to approve the local control measures listed above. In compliance with the next EAC milestone, these measures will be implemented on or before December 31, 2005. The TSD contains additional information on each of these control measures.

According to the EAC protocol, the AQIP must also include a component to address maintenance for growth at least 5 years beyond 2007, ensuring the area will remain in attainment of the 8-hour ozone standard through 2012. The Shreveport-Bossier City EAC area has developed an emissions inventory for the year 2012, as well as a continuing planning process to address this essential part of the plan.

The expected changes in emissions between 2000 and 2012 result in a 24 percent reduction in anthropogenic NO_x emissions and a 21 percent reduction in anthropogenic VOC emissions. These projections indicate that precursor NO_x and VOC emissions in the EAC area are expected to decrease further in 2012 compared to 2007 as a result of vehicle fleet turnover and a number of new national rules affecting on-road and off-road engine and fuel requirements (see the TSD for details on the Clean Air Diesel and Clean Air Nonroad Diesel rules). Using air quality models to anticipate the impact of growth, as well as the federal, state-assisted and locally-implemented measures to reduce emissions, the State has projected the area will be in attainment of the 8-hour ozone standard in 2007 and will remain in attainment through 2012.

To fulfill the planning process, the EAC signatories will review all EAC activities and report on these results in their semi-annual reports, beginning in June 2005. The semi-annual reviews will provide a description of whether the area continues to implement its control measures, the emissions reductions being achieved by the control measures in place, and the improvements in air quality that are being made. Each report must track and document, at a minimum, control strategy implementation and results, monitoring data and future plans. Ongoing, updated emissions inventories and modeling analyses will be included

as they become available. After each semi-annual review, additional control measures may be considered and, if necessary, adopted through revisions to this SIP.

The elements that address maintenance for growth meet the EAC protocol. EPA has reviewed the modeling and emission projections and proposes to approve the demonstration of attainment.

VII. What Happens if the EAC Area Does Not Meet the EAC Milestones?

On April 15, 2004, EPA designated the Shreveport-Bossier City EAC area as attainment for the 8-hour ozone standard. The measures outlined in the Shreveport-Bossier City EAC SIP submittal provide sufficient information to conclude that the Shreveport-Bossier City EAC area will complete each compact milestone requirement, including attainment of the 8-hour ozone standard by 2007. However, one of the principles of the EAC protocol is to provide safeguards to return areas to traditional SIP requirements should an area fail to comply with the terms of the compact. If, as outlined in our guidance and in 40 CFR 81.300, a compact milestone is missed and the Shreveport-Bossier City EAC area is still in attainment of the 8-hour ozone standard, we would take action to propose and promulgate a finding of failure to meet the milestone, but the 8-hour ozone attainment designation and the approved SIP elements would remain in effect. If the EAC area subsequently violates the 8-hour ozone standard and the area has missed a compact milestone, we would also consider factors in section 107(d)(3)(A) of the Act in deciding whether to redesignate the EAC area to nonattainment for the 8-hour ozone NAAQS. See 69 FR 23858, 23871.

VIII. Proposed Action

EPA is proposing to approve the attainment demonstration, its associated control measures, and the Shreveport-Bossier City EAC AQIP and incorporate these into the Louisiana SIP as a strengthening of the SIP. The modeling of ozone and ozone precursor emissions from sources in the Shreveport-Bossier City EAC area demonstrate that the specified control strategies will provide for attainment of the 8-hour ozone NAAQS by December 31, 2007.

IX. Statutory and Executive Order Reviews

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this proposed action is not a "significant regulatory

action" and therefore is not subject to review by the Office of Management and Budget. For this reason and because this action will not have a significant, adverse effect on the supply, distribution, or use of energy, this action is also not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Effect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001). This proposed action merely proposes to approve state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Because this rule proposes to approve pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4).

This proposed rule also does not have tribal implications because it will not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes, as specified by Executive Order 13175 (65 FR 67249, November 9, 2000). This action also does not have Federalism implications because it does not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). This action merely proposes to approve a state rule implementing a Federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. This proposed rule also is not subject to Executive Order 13045 "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), because it is not economically significant.

In reviewing SIP submissions under the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note), EPA's role is to approve state actions, provided that they meet the criteria of the Clean Air Act. In this context, in the absence of a prior

existing requirement for the State to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission, to use VCS in place of a SIP submission that otherwise satisfies the provisions of the Clean Air Act. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 do not apply. This proposed rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

List of Subjects 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: May 4, 2005.

Richard E. Greene,

Regional Administrator, Region 6.

[FR Doc. 05-9481 Filed 5-11-05; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[R06-OAR-2005-OK-0002; FRL-7910-8]

Approval and Promulgation of Air Quality Implementation Plans; Oklahoma; Attainment Demonstration for the Tulsa Early Action Compact Area; Ozone

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The EPA is proposing to approve a revision to the Oklahoma State Implementation Plan (SIP) submitted by the Secretary of the Environment on December 22, 2004 for Tulsa. This revision will incorporate a Memorandum of Agreement (MOA) between the Oklahoma Department of Environmental Quality (ODEQ) and the Indian Nation Council of Governments (INCOG) into the Oklahoma SIP and includes a demonstration of attainment for the 8-hour National Ambient Air Quality Standard (NAAQS) for ozone. The MOA outlines pollution control measures for the Tulsa Metropolitan Area Early Action Compact (EAC) area. The EAC is designed to achieve and maintain the 8-hour ozone standard

more expeditiously than the EPA's 8-hour implementation rulemaking. EPA is proposing approval of the photochemical modeling in support of the attainment demonstration of the 8-hour ozone standard within the Tulsa EAC area and is proposing approval of the associated control measures. We are proposing to approve this revision as a strengthening of the SIP in accordance with the requirements of sections 110 and 116 of the Federal Clean Air Act (the Act), which will result in emission reductions needed to help ensure attainment of the 8-hour NAAQS for ozone.

DATES: Comments must be received on or before June 13, 2005.

ADDRESSES: Submit your comments, identified by Regional Material in EDocket (RME) ID No. R06-OAR-2005-OK-0002, by one of the following methods:

Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.

Agency Web site: <http://docket.epa.gov/rmepub/> Regional Material in EDocket (RME), EPA's electronic public docket and comment system, is EPA's preferred method for receiving comments. Once in the system, select "quick search," then key in the appropriate RME Docket identification number. Follow the on-line instructions for submitting comments.

U.S. EPA Region 6 "Contact Us" Web site: <http://epa.gov/region6/r6comment.htm>. Please click on "6PD" (Multimedia) and select "Air" before submitting comments.

E-mail: Mr. Thomas Diggs at diggs.thomas@epa.gov. Please also cc the person listed in the FOR FURTHER INFORMATION CONTACT section below.

Fax: Mr. Thomas Diggs, Chief, Air Planning Section (6PD-L), at fax number 214-665-7263.

Mail: Mr. Thomas Diggs, Chief, Air Planning Section (6PD-L), Environmental Protection Agency, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733.

Hand or Courier Delivery: Mr. Thomas Diggs, Chief, Air Planning Section (6PD-L), Environmental Protection Agency, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733. Such deliveries are accepted only between the hours of 8 a.m. and 4 p.m. weekdays except for legal holidays. Special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Regional Material in EDocket (RME) ID No. R06-OAR-2005-OK-0002. The EPA's policy is that all comments

References

USEPA, 2004. *Guidance on State Implementation Plan (SIP) Credits for Emissions Reductions from Energy Efficiency and Renewable Energy Measures*, Air Quality Strategies and Standards Division Office of Air Quality Planning and Standards and Global Programs Division, Office of Atmospheric Programs.

Shreveport-Bossier, Louisiana, 2003. Shreveport-Bossier City MSA Early Action Compact Progress Report, December 31. Available on the City of Shreveport Web site at http://www.ci.shreveport.la.us/AirQuality/Shreveport_Appendix%20A_FINAL.pdf (Also included here as Appendix 2.)

REPORT DOCUMENTATION PAGE

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