EPA APPROVED NONREGULATORY PROVISIONS AND QUASI-REGULATORY MEASURES IN THE TEXAS SIP—Continued

Name of SIP provision	Applicable geographic or nonattainment area	State submittal/effective date	EPA approval date	Comments
Table 7.1–1 Enforceable Commitments	Houston/Galveston, TX	9/26/01	[Insert 11/14/01 Federal Register cite].	
Post 1999 Rate of Progress Plans and associated contingency measures.	Houston/Galveston, TX	9/26/01	[Insert 11/14/01 Federal Register cite].	
15% Rate of Progress Plan	Houston/Galveston, TX	12/09/00	[Insert 11/14/01 Federal Register cite].	
Revisions to the 1990 Base Year Inventory ..	Houston/Galveston, TX	12/09/00	[Insert 11/14/01 Federal Register cite].	
Reasonably Available Control Measure Analysis.	Houston/Galveston, TX	9/26/01	[Insert 11/14/01 Federal Register cite].	

[1] As revised 9/26/01.

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[FR Doc. 01–27580 Filed 11–13–01; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[TX–134–5–7509; FRL–7091–5]

Approval and Promulgation of Air Quality State Implementation Plans (SIP); Texas: Low Emission Diesel Fuel

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The EPA is approving a State Implementation Plan (SIP) revision submitted by the State of Texas establishing a Low Emission Diesel (LED) fuel program for distribution in 110 counties in the eastern and central parts of Texas. Texas developed this fuel requirement to reduce ozone as part of the State's strategy to achieve the National Ambient Air Quality Standard (NAAQS) in the Houston-Galveston Area (HGA) nonattainment area. We are approving Texas' fuel requirement into the SIP because we found that the fuel requirement is in accordance with the requirements of the Clean Air Act (the Act) as amended in 1990 and is necessary for the nonattainment area to achieve the ozone NAAQS.

DATES: This final rule is effective on December 14, 2001.

ADDRESSES: Copies of the documents relevant to this action are available for public inspection during normal business hours at the following locations. Persons interested in examining these documents should make an appointment with the appropriate office at least 24 hours before the visiting day.

Environmental Protection Agency, Region 6, Air Planning Section (6PD–L), 1445 Ross Avenue, Suite 700, Dallas, Texas 75202–2733. Texas Natural Resource Conservation Commission, 12100 Park 35 Circle, Austin, Texas 78753.

FOR FURTHER INFORMATION CONTACT: Ms. Sandra G. Rennie, Air Planning Section (6PD–L), EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202–2733, telephone (214) 665–7367.

SUPPLEMENTARY INFORMATION: Throughout this document ''we,'' ''us,'' and ''our'' means EPA.

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II. What Action Is EPA Taking Today?

We are granting final approval into the Texas SIP of Texas' LED fuel requirement for distribution in 110 counties in the eastern and central parts of Texas. The State's LED program will apply in the designated nonattainment counties in the Houston-Galveston (HGA), Dallas-Fort Worth (DFW), and Beaumont-Port Arthur (BPA) ozone nonattainment areas, and the attainment counties listed in this action.

III. What Are the Clean Air Act Requirements?

Section 172 of the Act provides the general requirements for nonattainment plans. Section 172(c)(6) and section 110 require SIPs to include enforceable emission limitations, and such other control measures, means or techniques as well as schedules and timetables for compliance, as may be necessary to provide for attainment by the applicable attainment date. Today's SIP revision involves approval of one of a collection of controls adopted by the State to achieve the ozone standard in the HGA nonattainment area as required under section 172. EPA approval of this SIP revision is governed by section 110 of the Act.

In addition to these general requirements, section 211(c)(4)(C) provides that a state fuel control, otherwise preempted under section 211(c)(4)(A), may be approved into a SIP if EPA finds the fuel control is ''necessary'' to achieve a NAAQS. Today's approval of the State's fuel control also meets the requirements of section 211(c)(4)(C) because we have found that the control is ''necessary'' to achieve the NAAQS in the HGA ozone nonattainment area.

IV. Why Is EPA Taking This Action?

We are taking this action because the State submitted an adequate demonstration to show the necessity for this fuel requirement to achieve the NAAQS in the HGA ozone nonattainment areas.

V. What Does the State's LED Regulation Include?

The State's LED regulation requires that diesel fuel sold within the 110 counties listed in the regulations have a maximum sulfur content of 500 ppm, have no more than 10 percent aromatic hydrocarbons by volume, and have a cetane number of 48 or greater. The regulations apply to diesel fuel sold for highway and nonroad use beginning April 1, 2005.

The nonattainment counties affected are Collin, Denton, Dallas, Tarrant, Harris, Galveston, Brazoria, Montgomery, Chambers, Liberty, Waller, Fort Bend, Jefferson, Hardin, and Orange.

The 95 central and eastern Texas counties affected by these rules are Anderson, Angelina, Aransas, Atascosa, Austin, Bastrop, Bee, Bell, Bexar, Bosque, Bowie, Brazos, Burleson, Caldwell, Calhoun, Camp, Cass, Cherokee, Colorado, Comal, Cooke, Coryell, De Witt, Delta, Ellis, Falls, Fannin, Fayette, Franklin, Freestone, Goliad, Gonzales, Grayson, Gregg, Grimes, Guadalupe, Harrison, Hays, Henderson, Hill, Hood, Hopkins, Houston, Hunt, Jackson, Jasper, Johnson, Karnes, Kaufman, Lamar, Lavaca, Lee, Leon, Limestone, Live Oak, Madison, Marion, Matagorda, McLennan, Milam, Morris, Nacogdoches, Navarro, Newton, Nueces, Panola, Parker, Polk, Rains, Red River, Refugio, Robertson, Rockwall, Rusk, Sabine, San Jacinto, San Patricio, San Augustine, Shelby, Smith, Somervell, Titus, Travis, Trinity, Tyler, Upshur, Van Zandt, Victoria, Walker, Washington, Wharton, Williamson, Wilson, Wise, and Wood Counties.

Beginning June 1, 2006, the sulfur content requirement will change to 15 ppm in all the above-named counties.

VI. What Did the State Submit?

The State submitted SIP revisions on December 20, 2000 for 30 Texas Administrative Code (TAC) 114 on December 6, 2000. The submittal contained data and analyses to support a finding under section 211(c)(4)(C) that the State's LED fuel requirement is necessary for the HGA nonattainment area to achieve the ozone NAAQS. For further discussion of the submittals, see the proposed approval, 66 FR 36542 (July 12, 2001) and accompanying Technical Support Document.

The State also requested parallel processing of 30 TAC 114 rules that were proposed on June 15, 2001. The proposed rules were adopted without changes on September 26, 2001, and submitted under a letter from the Governor dated October 4, 2001.

VII. What Comments Did EPA Receive in Response to the July 12, 2001, Proposed Rules?

Relevant comments on the proposed rulemaking to approve the Texas Low Emission Diesel (LED) rule into the Houston-Galveston (HGA) Ozone Non-Attainment area were received from the Association of American Railroads (AAR), the American Trucking Association (ATA), Baker and Botts on behalf of the Business Coalition for Clean Air (BCCA), Environmental Defense (ED), National Petrochemical & Refiners Association (NPRA), and Texas Motor Transport Association (TMTA). Reliant Energy (REI) also referenced this rulemaking in a comment letter on other related rulemaking actions, but made no substantive comments about the LED fuel program except to endorse comments made by BCCA; therefore, all comments mentioned below as having been made by BCCA are also made by REI. Responses to the comments follow.

Issue 1: Cost and Feasibility of the LED Fuel Rule and Program

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Federal inquiry into the economic reasonableness of state action is not allowed under the Clean Air Act (see, Union Electric Co., v. EPA, 427 U.S. 246 (1976); 42 U.S.C. 7410(a)(2)) other than for purposes of evaluating the reasonableness and availability of alternatives for purposes of a waiver of Federal preemption. Even though EPA's role is not to second guess the state's choices in this regard, EPA has done its own review of specific comments noted below on the potential cost and feasibility of the LED fuel rule and program.

1.1 State LED requirements will lead to significantly higher production costs

BCCA asserts that the production cost of LED will be greater than Texas has estimated. In particular, the first phase will cost 9 cents per gallon to produce, or about twice what Texas estimated. The second phase will be comparable to the cost of producing ultra-low sulfur diesel (ULSD) fuel for the federal rule, or about 10 cents per gallon. Overall the combined cost for producing LED fuel is estimated to be over two times higher than the Texas estimate of 8 cents per gallon.

Response: EPA believes that the State's estimates of increased production costs are generally consistent with that which has been observed for wholesale prices for diesel fuel in California. (Using California as

an indicator is appropriate because the California diesel requirements are very similar to those in the LED rule). According to a California Air Resources Board (CARB) publication entitled California Diesel Fuel Factsheet (1997), a gallon of California diesel costs one to four cents per gallon more to produce than diesel fuel in other states. More recently, CARB analyzed wholesale diesel prices in California and neighboring States (Arizona, Oregon and Nevada) during the period 1997 to 2001 and found that California wholesale diesel prices ranged from 1.3 cents per gallon lower to 6.0 cents per gallon higher (averaged 0.8 to 4.5 cents/gallon more) than diesel in Arizona, Oregon and Nevada (September 13, 2001 letter from CARB to ''World Fuels Today'', a copy of which is in the docket for this rulemaking). With respect to the second phase of LED fuel, *i.e.,* the 15 ppm sulfur requirement, we note that refiners who make highway diesel fuel will be subject to ULSD requirements at the same level under the federal rule in the same timeframe, so the production cost for phase 2 LED would be comparable to ULSD. According to data from Energy Information Administration (EIA),[1] ULSD production cost for PADDIII (which includes Texas, and is defined below in response to Issue 1.3) range from 4.5 to 7.0 cents per gallon higher than current diesel costs, so the Texas estimate of four cents per gallon for phase 2 LED is consistent with this range.

1.2 State LED requirements could cause supply disruptions

BCCA and NPRA argue that there is a higher market risk of the LED rules; specifically, it will reduce regional diesel fuel supplies, reduce incentives for refineries to invest in low sulfur diesel facilities, and limit refiner's ability to build new facilities. NPRA argues that any requirement for a unique diesel fuel will affect supply balance.

Response: As discussed in detail in the response to issue 1.6, we estimate that approximately 60 percent of diesel supplied to Texas is in the 110 county area affected by the LED rule. At a minimum, therefore, we expect that LED would make up 60 percent of the diesel used in Texas. The Texas comptroller's office reports that 3.1 billion gallons of diesel were sold in Texas during the fiscal year ending August 30, 2001.[2] Thus 1.8 billion gallons of LED would be required to replace the existing grades being sold. Diesel consumption in Texas is approximately 8 percent of the U.S. total consumption (see issue 1.6).

Approximately 18 to 20 percent of U.S. refineries producing diesel are located in Texas. This is comparable to California in which approximately 15 percent of U.S. refineries producing diesel are located in California. Because California refineries for the most part supply the special diesel required in that state, the situation in Texas is similar. In addition, considering refineries located in the neighboring States of Louisiana, Oklahoma, Arkansas, and New Mexico, the number of refineries in or in proximity to Texas rises to 34 to 38 percent of the U.S. total.

Based on this information, EPA concludes that refineries in Texas and neighboring states currently supplying the covered area with diesel now are highly likely to supply the LED fuel. EPA believes because of the size of the covered area and its proximity to widespread fuel production and distribution systems, the area will be less prone to many of the problems associated with small isolated areas that have unique fuel requirements.

1.3 State LED requirements could cause price spikes

ATA asserts that boutique fuels are contrary to sound public policy objectives because departures from the national diesel fuel standard will disrupt interstate and local trucking industries. The parties assert this is mainly because Texas LED requirements would create a boutique fuel and lead to unpredictable price spikes.

Response: The 110 county area in Texas in which the LED fuel will be consumed is very large and in close proximity to widespread fuel production and distribution systems. Thus, the fuel will be less prone to many of the problems associated with unique fuel requirements in small isolated areas. (See 1.2 above). We conclude that the frequency of price spikes in Texas would not be expected to be greater than the frequency of spikes in other areas. Therefore we examined diesel prices in Petroleum Administration for Defense Districts (PADD) PADD III and PADD IV[3] and analyzed those prices relative to prices of diesel in California—a state which currently has a large diesel program. Retail diesel prices were obtained for the period July 1995 through September 2001 from the Energy Information Administration (*http://www.eia.doe.gov/oil_gas/petroleum/info_glance/distillate.html*). The price of diesel in California was positively correlated to the prices of diesel in PADD III and PADD IV (correlation coefficients of 0.93 and 0.94, respectively), indicating the frequency of spikes was not unique to—nor were spikes more frequent in—California.

1.4 Retail price increases may not be reasonable

NPRA argues that the potential cost volatility of Texas low emission diesel does not meet the CAA requirement that the state fuel regulation be both reasonable and practicable. The TNRCC has estimated the production cost of LED to be four cents per gallon more than current specifications. Parties suggest that Energy Information Administration (EIA) data indicate the retail price of diesel in California is much more than four cents per gallon higher than the price of diesel in PADD III (11 to 41 cents per gallon).

Response: Comparing State of Texas estimates for production cost to California retail prices and PADD III retail prices is misleading because retail prices do not reflect the production cost alone. Other factors in retail pricing include differences in supply and demand, dealer mark up, and proximity of supply. The State of Texas has determined that 4 cents per gallon (production costs) for Phase I is an acceptable difference since LED provides an environmental benefit. As discussed in issue 1.1, California recently validated similar production cost estimates for their analogous diesel fuel via a comparison of wholesale prices in California to prices in neighboring states. Based on this, we believe that State of Texas' estimate is reasonably accurate. See also our response to issue 3.8 for discussion of NPRA's comment about the CAA requirement.

1.5 State LED requirements will injure small businesses

BCCA asserts that the LED rule will have an adverse effect on small businesses and disagrees with Texas' characterization that the impact will be small. Commenters argue that retailers located in the covered area near the boundary areas will suffer because facilities outside the area can sell non-LED fuel which would be lower in price.

Response: The commenter does not quantify the extent of the impact, nor do

[1] ''The Transition to Ultra-Low Sulfur Diesel Fuel: Effects on Prices and Supply,'' May, 2001, EIA, Chapter 7, page 68. It is posted at *http://www.eia.doe.gov/oiaf/servicerpt/ulsd/pdf/ulsd.pdf.*

[2] Personal communication between EPA and Texas comptroller's office; October 1, 2001.

[3] A PADD is a designation used to delineate regions of petroleum production. Texas is in PADD III (Gulf Coast) which also comprises New Mexico, Louisiana, Arkansas, Mississippi and Alabama. PADD IV comprises the States of Montana, Idaho, Wyoming, Utah, and Colorado.

they provide any evidence that this will happen. Specifically, we do not know with certainty what the price differential between LED and non-LED fuel will be. The commenter also does not provide the relationship between price differential and outside-the-boundary purchases. Presumably at lower differences in price, impacts will be small to negligible. Finally, the commenter does not provide the percentage of retail facilities located near the boundary of the covered area that are owned by small businesses as opposed to larger companies.

1.6 State LED requirements will injure the trucking industry

ATA and TMTA argue that the rule represents a departure from the national diesel fuel standard and that there will accordingly be a sudden price increase or spike in diesel fuel in Texas. They base the argument on price behavior of ''boutique fuels'' thus asserting that the LED will be a boutique fuel and have similar impacts. They state that the price increases will be disruptive and will force many small truckers into bankruptcy. They argue that an RIA to assess the economic impacts of the rule has not been prepared as required under Texas law.

Response: While there will be some increase in price due to increased production costs, we do not believe that they will be excessive as discussed previously in our responses to issues 1.1 through 1.4. We also believe that characterizing the LED as a fuel that will cause problems in distribution and supply because of the nature of its specifications is misleading. Unique fuel requirements, particularly in isolated or small markets, are those that have caused the greatest concern. This would not be the case with LED.

The LED will be required to be sold in a 110 county area. The total lane-miles in the covered area represents approximately 60 percent of the lane-miles for the entire state of Texas.[4] Diesel use is generally directly proportional to lane miles; thus, the 60 percent figure suggests that there will be a large market for the LED; i.e., approximately 60 percent of the diesel sold in Texas will be LED. The amount of diesel fuel currently used in Texas makes up approximately 8 percent of the total national demand.[5] Given the large market for diesel that Texas currently represents—and that the LED fuel will also represent—it is highly likely that the refiners that currently make and supply diesel for Texas will make the LED. The large market for LED provides some degree of assurance that LED will not function as a specialty fuel that only a few refiners will make. When that happens, there are difficulties if the refinery that supplies the fuel is unable to operate which cause prices to increase or spike. Because of the large source of supply of LED, the LED rule will not reduce the fungibility of diesel supply; thus, we do not envision the same issues of supply disruptions that sometimes occur with other types of unique fuels.

The issue of the RIA is addressed under Issue 7.

1.7 State LED requirements will injure the railroad industry

AAR states that the costs of LED will be significant to the railroad industry even if only 4 cents/gallon as TNRCC estimates. This is significant to the railroad industry which purchases more than 4.1 billion gallons of diesel fuel annually.

Response: The commenter's argument about cost being a significant factor because of the large volume of diesel fuel purchased by the railroads is based on national diesel consumption. The LED will be sold only in a 110 county area in Texas. Based on year 2000 data from the Energy Information Agency's (EIA) ''Fuel Oil and Kerosene Sales 2000'' report, the amount of diesel used by railroads on a national basis is 3,290,507,000 gallons of which Texas railroads consume 504,360,000 gallons or approximately 15 percent. While there will be an increase in cost to the railroads, we estimate such increase to be 15 percent or less of their projected cost.

1.8 State LED requirements will impair future controls on railroads

AAR commented that implementing the LED rule for locomotives would significantly increase costs without offsetting environmental benefits. They cite a document entitled ''Statement of Principles: Houston/Galveston Ozone Nonattainment Area Railroad Program'' signed by USEPA, TNRCC, Burlington Northern & Santa Fe Railway Company, and Union Pacific Railroad Company. They claim they are committed to implementing measures to achieve greater emission reductions than those required under EPA's locomotive emissions regulations.

Response: We have addressed cost in our responses to Issues 1.1 through 1.6. We do not believe that the increase in cost of fuel will be prohibitive, nor do we believe that they will adversely affect business.

We agree with the commenter that locomotives are more fuel efficient than trucks, and so would have lower emissions on a ton/mile basis. Fuel efficiency is only one means to reduce emissions; however, having greater fuel efficiency does not mean that there is no room for improvement. If emissions are lower using LED, then locomotives would stand to have even greater emission reductions.

We also agree that approving the LED program in Texas does limit the measures available for the companies to meet the reduction targets agreed upon for the Statement of Principles in that this type of fuel will now be required. Sufficient alternatives still exist, however, that allow the companies to meet their emission reduction goals

1.9 State LED requirements will impair implementation of Federal low-sulfur diesel

ATA and BCCA commented that boutique fuels are contrary to sound public policy objectives because boutique fuels will jeopardize EPA's efforts to introduce ULSD in 2006. The ULSD requirement, in conjunction with tighter emission standards, will result in much greater emission reductions than the LED rule, especially when considering the negative impact of the LED rule on the refining industry's effort to comply with the ULSD rule. The refining industry's need to make substantial capital investments to produce ULSD fuel will be diverted to comply with the LED rule. BCCA supports efforts to align the Texas rule with EPA's national rulemaking.

BCCA commented that the existing distribution infrastructure for diesel fuel is not adequate to supply both LED fuel within Texas and EPA-specified fuels throughout the rest of the country. (Focused especially on low sulfur phase of LED rule.)

NPRA commented that the sulfur standard of LED program which takes effect in 2006 (15 ppm) is inconsistent with EPA's ultra low sulfur diesel (ULSD) program, also taking effect in 2006 but at a different date (9/1/06 for

[4] ''Lane miles'' are the product of miles and the number of lanes in a given area. Thus, a one-mile segment of six lane highway is equivalent to 6 lane miles. Lacking diesel fuel sales or use on a county-wide level, we felt that lane miles would serve as a relatively accurate surrogate for diesel use. We had considered using vehicle miles traveled (VMT) as a surrogate. VMT in the 110 county area makes up 95percent of total VMT in Texas, according to Texas Department of Transportation (TXDOT) statistics. The TXDOT statistics, however, include both diesel and gasoline vehicles on given lengths of road. Because ''lane miles'' do not include vehicle use, they serve as a better indicator.

[5] The figure of 8 percent was derived from EIA: ''Fuel Oil and Kerosene Sales 2000'' information compiled by the Federal Highway Administration, using the annual VMT for trucks in Texas and nationwide.

EPA, compared to 6/1/06 for LED) and with transitional flexibilities that permit the sale of some 500 ppm sulfur cap highway diesel fuel until the end of May, 2010 (which LED does not have.) Additionally, the EPA program includes a credit trading feature which would exclude LED fuel, thus resulting in the unintended consequence of creating an obstacle to the accomplishment of the transitional objectives of EPA's program. This could jeopardize the supplies of ULSD, which could in turn cause increased product price volatility, price spikes, and product outages. (Cites EIA report, The Transition to Ultra-Low Sulfur Diesel Fuel: Effects on Prices and Supply, May, 2001, especially chapter 5.)

Response: The commenter points out that the low sulfur standard of the LED program takes effect at a different date than the ULSD rule. There is only a three month difference, however. We do not believe this poses logistical difficulties. Also, the low sulfur requirement of the LED rule was established to harmonize with EPA's ULSD rule so that there would not be a significant difference in sulfur requirements.

The commenter also argues that producing LED will be difficult because of the efforts needed to meet EPA's ULSD rule in that this rule excludes LED fuel from the credit trading provision. The ULSD rule contains a provision that if a state requires more than 80 percent of its fuel to meet a sulfur limit of 15 ppm or lower, then it would be excluded from the credit transfer area, a region that generally follows the boundaries of the Petroleum Administration for Defense Districts (PADDs). Since the major concern in the ULSD rule was ensuring availability of 15 ppm fuel nationwide, credit transfers were limited to these areas.

Under this provision Texas would in effect become its own PADD, separate from PADD III. Because much of the refining capacity in PADD III is in Texas, the commenter is correct that the LED rule will limit the flexibility offered under the ULSD rule for refiners in Texas. The LED rule, however, will also result in more production of 15 ppm fuel in PADD III, and thus more availability of 15 ppm fuel. The market for LED fuel is certain, allowing refiners a reasonably accurate estimate for payback of the investments required to make this fuel. Finally, a state that obtains a waiver of preemption for fuels under section 211(c)(4)(C) of the Clean Air Act, (which we are granting to the State of Texas for the LED rule, as it applies to highway diesel fuel,) can adopt fuel controls that are non-identical to and that may be more stringent than federal requirements.

As indicated in the response to issue 1.6, because of the large area in which LED area would be required, we do not believe that supply and fungibility problems that are typical to fuels with unique specifications in small isolated areas will affect LED. The LED fuel will replace the diesel fuel currently used in the 110 county area. Since this area represents an estimated 60 percent of the diesel use in Texas, the area represents a dedicated market that refiners are currently servicing, and in close proximity to numerous refineries as noted in our response to issue 1.2. Those refiners who choose to make the LED fuel will have complied with the ULSD sulfur limits which would therefore not jeopardize EPA's efforts to introduce ULSD in 2006.

Issue 2: Benefits of the LED Rule and Program

2.1 The environmental benefit of the LED rule is uncertain or overstated because the analysis of the NO_X reduction benefit is flawed

ATA commented that Texas failed to establish baseline fuel parameters representative of local parameters, instead relying on national averages. Furthermore, Texas failed to establish whether the single prototype engine used by Heavy-Duty Engine Working Group (HDEWG) is representative of the 1990 and later model year engines that will be operating in the nonattainment area in 2005.

BCCA commented that Texas has overestimated the NO_X reduction benefit of LED fuel because EPA stated in the preamble to ULSD NPRM that the emission effects of regulating aspects of diesel fuel other than sulfur are ''rather small, and points out the limited test data on which ERG relied in making its 7/26/00 estimate . ATA agrees stating that Texas' estimate for older engines is suspect because it relied on CARB data, which is ''thin,'' and Texas mistakenly applied the wrong estimate from CARB. ATA further states that CARB claims only a 5.6 percent reduction for its diesel fuel rather than 7 percent as Texas uses for pre-1990 highway engines. (Cites CARB's EMFAC 2000 TSD, Section 10.9, 5/15/00, and say CARB mistakenly bases its estimate on 10 percent aromatic fuel. This is not used in California but ''equivalent'' formulas are used if they demonstrate equivalency using a 1991 Detroit Diesel engine. ATA says the appropriateness of using this engine to demonstrate fuel equivalency is the ''subject of great debate.'' They note that in 2005 the pre-1990 trucks will be 15 years old and will comprise only a very small percentage of the trucking fleet.)

ATA states that the emissions impact of altering gasoline fuel components is well understood, with several peer-reviewed studies, but the same scientific rigor has not been applied to estimating the emissions impact of altering diesel fuel components. (Cites Sierra Research, Inc. report, 3/20/98, and MathPro, Inc. and Energy & Environmental Analysis, Inc. report, 2/16/98.)

Furthermore, ATA states EPA has itself questioned the benefits of altering diesel fuel components, and has not yet completed its analysis. ATA said EPA will host a public workshop (which was held on 8/28/01) to ''receive comment on its preliminary evaluation of the emission reductions from LED fuel.'' ATA's preliminary analysis of EPA's model reveals significant statistical errors, rendering its predictive capabilities inadequate. It is impossible to make the Section 211 necessity determination without first accurately quantifying the emissions impact of using this fuel.

ATA states that there is bipartisan commitment to study the impacts of boutique fuels, in the form of a bill recently passed by the U.S. House of Representatives to require a joint DOE/EPA report by 12/31/01. Making a decision on the LED fuel before this report is produced is unwise and unnecessary.

BCCA encourages Texas to adopt the EPA diesel formulation without cetane and aromatics controls. AAR states that although TNRCC says there are additional emission reductions when low sulfur fuel is coupled with low aromatic content fuel, regardless of engine technology, the cost to achieve any such additional reductions, when compared to the emissions benefit, would be enormous. The direct effect on emissions of LED would be small. (Cites EPA's discussion of effects of fuel parameters on emissions, 64 FR 26142, 26147, 5/13/99.)

Response: In the preamble to our recent proposed rulemaking on the emission standards for heavy duty engines and the sulfur level of highway diesel fuel, EPA considered whether parameters of highway diesel fuel other than sulfur should be regulated. EPA's focus in that proposal was to enable diesel engines to meet much more stringent emission standards which EPA was also proposing. We believed that diesel engines could meet those standards with the use of advanced exhaust emission control systems, but the performance of these systems is dramatically reduced by sulfur. Other

fuel properties such as cetane levels and aromatics content did not appear to have the same impact as sulfur on the advanced emission control systems, although they could achieve immediate emission reductions by affecting the combustion process directly rather than by enabling the advanced emission control system. We noted, however, that those emission reductions effects are ''rather small,'' especially in comparison to the emission benefits projected to occur as a result of the more stringent emission standards and sulfur levels in highway diesel fuel that EPA was then proposing, and subsequently adopted. (See preamble to proposed rule, 65 FR 35430, 6/2/00, at 35519–35520. For final rule, described in the Issue 1 discussion as the ''ULSD rule'', see 66 FR 5002, 1/18/01.)

Although Texas, just as other states, will see the NO_X reduction benefits of this federal rule when the engine emission standards and the fuel sulfur controls are implemented, beginning in 2006–2007, it will not see significant NO_X reductions by 2007, the attainment date for the Houston area to achieve the 1-hour ozone standard. The full benefit of the federal rule will not be seen until significant fleet turnover occurs, when the newer engines meeting the more stringent emission standards are a bigger portion of the highway diesel fleet. Texas chose to impose restrictions on the cetane and aromatics levels of diesel fuel for both highway vehicles and nonroad equipment, realizing that the NO_X emission reductions would be immediate, even if the emission reductions would not be as large as those which will result from the Federal rule.

When we learned that Texas was claiming NO_X reductions from the cetane and aromatics controls in its low emission diesel rule, we were concerned about the size of the estimated benefits and the analysis upon which the estimate was based. In November, 2000, we initiated a project to analyze existing test data, rather than conduct new emissions testing, and developed a regression model approach to analyze the results and to develop a quantitative relationship between fuel parameters and emissions changes. In July, 2001, we made public a Staff Discussion Document [6] with the preliminary results of this analysis.

As part of our process in conducting this analysis, we had notified stakeholders of our project and asked for relevant data. As we prepared our preliminary conclusions, we met with numerous stakeholders to review these conclusions, beginning in May, 2001, and in response to requests from stakeholders, held a public workshop on August 28, 2001, to hear comments on the Staff Discussion Document. Although the comment period on the Staff Discussion Document remains open to October 30, 2001, we have analyzed the comments made at the workshop which have the most direct bearing on our NO_X benefit estimates for the LED rule, and believe it is appropriate to use the estimates from EPA's draft NO_X model in lieu of the estimates Texas originally claimed. More detail on EPA's review of these comments and our use of the draft NO_X model in estimating the NO_X benefits of the LED rule are in the memorandum dated September 27, 2001, from Robert Larson, Acting Director, Transportation and Regional Programs Division, EPA Office of Transportation and Air Quality, to Carl Edlund, Director, Multimedia Planning and Permitting Division, EPA Region VI. (See memo in docket for this rulemaking.)

As noted in Section I of the Staff Discussion Document, Texas claimed that use of LED fuel in the attainment year (2007) reduced NO_X emissions by 7 percent for older highway diesel engines (pre-1990 model year) and for nonroad engines, and by 5.7 percent for newer highway diesel engines (1990 and later model years). EPA's estimate is similar, but is given with respect to different engine categories, *i.e.*, we estimate that the use of LED fuel in 2007 will reduce NO_X emissions by 6.2 percent for highway or large nonroad diesel engines without EGR technology, and by 4.8 percent for highway or large nonroad diesel engines with EGR technology.

For this estimate, we are defining ''large'' nonroad engines as those engines with greater than 50 horsepower. ''EGR'' technology is ''exhaust gas recirculation'' technology, which we expect will play a significant role in new engines designed to meet EPA's 2004 heavy duty highway engine emission standards. We expect many of the new engines with EGR technology will be produced as early as 2002. Many nonroad diesel engines may also be produced with EGR technology in order to meet EPA's Tier 3 standards beginning with model year 2005. For small nonroad engines (less than 50 horsepower) which constitute a very small fraction of the nonroad engine emissions inventory, we have determined that we cannot assign a NO_X benefit on the basis of data considered by EPA.

This estimate is based on comparing the LED-like fuel to a baseline fuel with the same diesel fuel properties as those reported by the Alliance of Automobile Manufacturers (AAM) for nationwide average diesel fuel properties (excluding California). AAM data is based on surveys of fuel properties in various cities around the country, including San Antonio, but no other cities in Texas; we could not find any other source of data for Houston. The average fuel properties for San Antonio are very similar to the nationwide average fuel properties, but since we could not be certain that the San Antonio average fuel was a better representation of Houston fuel than the nationwide average, given the small differences between the two, we used the nationwide average fuel properties to represent the baseline fuel. (*See* issue 6 in the September 27, 2001 memo from Larson to Edlund.)

As to the use of estimates for newer engines based on results of the Heavy Duty Engine Workgroup (HDEWG), the use of California data for older engines, and the concern over a limited database, we refer to the discussion in both the Staff Discussion Document and the September 27, 2001, memo from Larson to Edlund (particularly issues 3, 4, and 5) regarding the size of the database, the names and dates of the 35 studies which EPA used in building its draft NO_X model, and the appropriateness of making estimates for newer model engines with more limited data points. One of EPA's concerns about Texas's original estimate was the reliance on California data, most of which was collected under the VE–1 program administered by the Coordinating Research Council and used by California in preparation for its October, 1988, report on the projected benefit of its proposed diesel fuel regulation, which was eventually adopted and implemented in 1993. We knew that many more studies relevant to this subject had been completed since 1988, and we have been able to use those studies in our project. With respect to the estimate in section 10.9 of California's EMFAC 2000 Technical Support Document of 5.6 percent for NO_X reductions for pre-1991 engines (as well as its estimate of 12.4 percent for NO_X reductions for 1991 and later engines) these are not the estimates EPA is using and approving today.

The discussion of issue 4 in the September 27, 2001, memo addresses the appropriateness of using data from the HDEWG program for newer engines. Although ATA expressed concern that

[6] ''Strategies and Issues in Correlating Diesel Fuel Properties with Emissions,'' Staff Discussion Document, EPA report number EPA420-P–01–001, July 2001. This document is in the docket for this rulemaking and is posted on EPA website at: *http://www.epa.gov/otaq/models/analysis.htm*

the estimate for 1990 and later model engines was based on the single prototype engine used by HDEWG, we note that EPA's estimate is based on data from more this single post-1990 engine, although we acknowledge that 1997 and newer model engines are not well represented in the database. In discussing Issue 4, we explain the reasons we think this does not affect the validity of the estimate, and we incorporate that discussion by reference here.

ATA commented that, although the emissions impact of altering gasoline fuel components is well understood, with several peer-reviewed studies, the same scientific rigor has not been applied to estimating the emissions impact of altering diesel fuel components. As we note in discussing issue 2 in the September 27, 2001, memo, most of the studies in our database have gone through some level of peer review, including 28 studies (out of 35) for which this was a requirement since they were published under the auspices of the Society of Automotive Engineers. We note other levels of review applicable to three more of the studies conducted through the Coordinating Research Council as well as EPA's own review of the quality of the studies before deciding to use the emissions data for our database. This level of review ensures there is scientific rigor to our process.

ATA also comments that a bill recently passed by the U.S. House of Representatives would require EPA and the U.S. Department of Energy to conduct a joint study of the impact of boutique fuels, and that EPA's approval of the LED rule in advance of this study is unwise and unnecessary. We note that, although ATA did not identify the bill, we believe they are referring to Section 603 of HR 4 which is pending action in the U.S. Senate but has not yet become law as of today. EPA is required to take final action on the SIP submittal for Houston by October 15, 2001, under a consent decree, and cannot base any aspect of its decision on this or any other Congressional bill which has not yet become law. Additionally, we have addressed concerns raised by this commenter and others regarding cost and feasibility of the LED rule in the responses to several comments related to issue 1 of the LED rule.

In summary, we believe the NO_X reduction benefits of the LED rule are estimated with reasonable certainty, and are not overstated. EPA carefully reviewed the available test data relevant to analyzing emissions impacts of LED fuel, subjected its analysis to public scrutiny, evaluated comments at a public workshop, and has concluded that its draft model is an appropriate predictor of NO_X emission impacts of the LED rule, as described above and in the September 27, 2001, memo from Larson to Edlund.

2.2 The environmental benefit of the LED rule is not properly accounted for or is insignificant because its reliance on low sulfur levels will not have impact until newer engines enter the fleet after 2007, or because low sulfur levels will not have impact on locomotives since they do not use engines which benefit from low sulfur fuel.

BCCA asserts that the emissions benefit for the LED rule is not properly accounted for since the program will not be mature in the attainment year (2007) and will not get the estimated benefit until the fleet turns over and there are more vehicles with exhaust treatment systems that can efficiently make use of the low sulfur LED fuel. TX should ''work with EPA and all the other areas in this predicament to develop a method for crediting these prospective reductions.''

AAR commented that there has been no showing that LED would have a significant impact on emissions, especially lower sulfur. AAR also noted in comments to TNRCC in its rulemaking process that EPA has refrained from requiring railroads to use low sulfur fuel because there would not be any meaningful environmental benefit. Sulfur levels in diesel fuel are controlled to enable the use of aftertreatment devices, but neither the railroad industry nor EPA expects such devices suitable for locomotives to be available in the foreseeable future. (In 1997, EPA noted that exhaust gas recirculation (EGR) systems would probably not be used by locomotive manufacturers due to technical problems, and that catalysts on locomotives are problematic. Cites OMS document, ''Locomotive Emission Standards: Regulatory Support Document'' p 87, 12/97.) TNRCC said, in response to AAR's objections, that control of non-road diesel fuel is necessary in terms of retrofit technology, but neither EPA nor the railroads expect that retrofit technology dependent on LED will be used on locomotives in the foreseeable future. (Cites TNRCC Rule Log 2000–011D–114–AI, p 44.)

Response: Texas is not relying on low sulfur levels in calculating estimated benefits of the LED rule, but relies only on the changes in cetane and aromatics levels, which will have an immediate impact on the current fleet. (*See* page 6–17 of the HGA Attainment Demonstration SIP.) As noted in the TSD, sulfur has no direct effect on NO_X reductions by itself. If low sulfur fuel is used with engines that have either been retrofitted or originally designed with aftertreatment devices or other methods of taking advantage of the low sulfur fuel, the combined effect is reductions in NO_X emissions.

2.3 The Environmental Benefit of Using LED Fuel Is Overstated Because Texas Has Failed To Account for Consumers Who Will Re-fuel Outside the Covered Area

ATA and TMTA assert that Texas has overestimated the benefit of using LED fuel because it did not account for refueling by consumers outside the covered area. ATA cites the Arizona report for the statistic that six times as many trucks refuel outside California as within California. As a result, the LED rule would likely result in more vehicle miles traveled with a corresponding increase in vehicle emissions. Additionally, long-haul trucks will fuel up before entering the covered area and eliminate any benefit assumed to derive from their use of LED fuel. Approving the waiver request in the absence of an accurate estimate of emissions reductions is arbitrary and capricious.

TMTA notes two reasons for refueling outside the covered area, as follows:

(1) The use of ''federal fuel'' has not been accounted for. Except for diesel vehicles which operate solely within the covered area, all other diesel vehicles traveling within the covered area have an incentive to purchase cheaper federal fuel outside the covered area. TMTA refers to California and Arizona statements (regarding the percentage of diesel vehicle miles or activity attributable to out-of-state vehicles or vehicles purchasing diesel fuel outside a covered area) as examples supporting a statement that the LED rule will not be able to affect the significant level of federal fuel use, and questions Texas' failure to anticipate an environmental difference between application of the LED rule statewide (as currently adopted) and application in only 110 counties (as currently proposed.) TMTA says the failure to account for the use of federal fuel in its estimates of potential emission reductions is contrary to law and must be remedied.

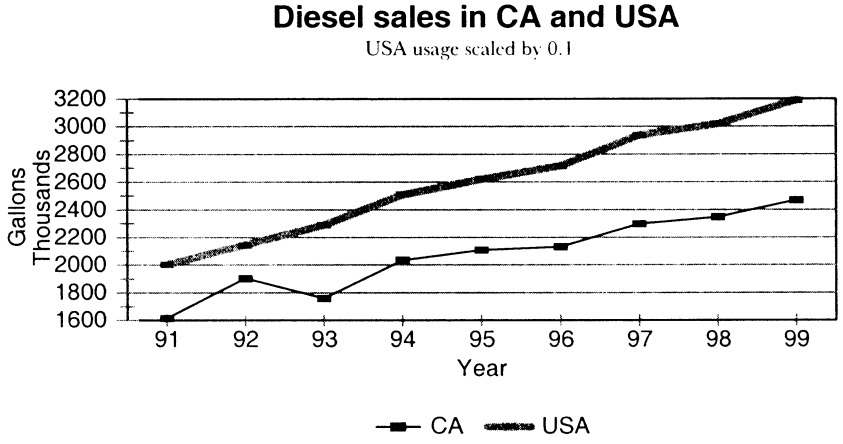
TMTA cites CARB EMFAC 2001 Workshop, 5/29/01, for the statement that according to California's emissions inventory model, 33 percent of the state's HD diesel vehicle activity is attributed to out-of-state vehicles. They also cite Arizona Department of Environmental Quality Deputy Director

Ira Domsky's report to the On-Road Mobile Sources Subcommittee, 11/00, CARB diesel evaluation-amount of locally purchased diesel fuel, for the statement that in the Phoenix metropolitan area, more than 70 percent of diesel vehicle miles are attributed to vehicles operating on diesel fuel purchased outside the area. (2) The cheaper ''federal fuel'' will be available across county and state lines, within 50 miles of the HGA and DFW nonattainment areas and adjacent to the BPA nonattainment area, so trucking companies will begin serving the covered area from primary or satellite operations based in Arkansas, Oklahoma, Louisiana, western Texas, and beyond. The real impact will be an increase in vehicle miles traveled, as trucks drive beyond the covered area to purchase cheaper fuel but presumably return to serve the covered area.

AAR argues that because locomotive fuel tanks have a capacity of several thousand gallons, locomotives travel for as much as 1,000 miles without refueling. Locomotives entering a state are fueled out-of-state, and much of the fuel they burn is out-of-state fuel. They argue that the converse is also true; *i.e.*, that locomotives fueled in-state burn a significant amount of that fuel out-of-state, so that the LED requirement would mostly benefit states other than Texas since most of the LED purchased in Texas would be burned in other states.

Response: Regarding the commenters' arguments that trucks will seek to refuel outside the covered area, we do not believe that this will be the case based on the usage pattern of diesel in California. Based on annual diesel fuel usage numbers compiled by the Federal Highway Administration (FHWA) from 1991 through 1999, we compared the slope of increase in diesel fuel use between California and nationwide. The diesel usage pattern for California and USA (derived from statistics compiled by FHWA[7]) shown in Figure 1 below however, does not indicate an abrupt change in refueling patterns in California.[8] Figure 1 indicates that in 1993 (the year in which California's diesel rule took effect) there is a slight decrease in use from the previous year. In all subsequent years, however, the increase follows a similar rate of increase as the nationwide rate.

Figure 1:



We also investigated the statement that the commenter attributes to the Arizona Department of Environmental Quality (ADEQ) that six times as many trucks refuel outside California as within California. On page 7 of ADEQ's April, 1999 report titled ''Explanation for Choosing not to Require CARB Diesel or Other 'Cleaner' Diesel Fuels in Maricopa County'' ADEQ states: ''ADEQ has been advised that, in California, six times as many long-distance trucks refuel outside California before entering the state than refuel in California before leaving.'' The referenced report, a copy of which is in the docket for this rulemaking, does not cite any source or other supporting data for this statement. As such, we believe that it may be anecdotal and is not supported by the California diesel usage shown in Figure 1. Alternatively, if it is true, it may be the case that this pattern existed even before California's diesel rule went into effect. The commenter has provided no data to support the conjecture that refueling patterns will change other than the apparently anecdotal evidence from Arizona, and statements that higher costs will cause trucks to refuel outside the covered area.

Taking California as an indicator, therefore, we do not believe that the trucking industry will reroute trucks in order to refuel outside the covered area. With respect to the statement that long haul trucks will seek to refuel out of state or outside the covered area, we note that according to the 1997 Vehicle Inventory and Use Survey, compiled by the U.S. Census, the majority of truck traffic in Texas remains in-state. Specifically, less than 25 percent of the miles traveled by the majority of truck traffic in Texas (70 percent) is outside of Texas. Also, the average range of operation or length of trip for approximately 76 percent of the truck traffic in Texas is less than 200 miles. Border-to-border travel distances for the 110 county covered area range from 153 to 454 miles. Based on these figures, we believe that the majority of environmental effects from use of LED by trucks comes from the in-state traffic, not from through traffic. We do not believe that the small amount of long-

[7] Available at: *http://www.fhwa.dot.gov/ohim/ohimstat.htm*

[8] National usage has been scaled by multiplying values by 0.1 for purposes of comparing rate of increase with California usage. FHWA usage figures are based on state motor fuel tax records. Motor fuel usage was split between gasoline and ''special fuel'' which includes diesel, liquid petroleum gas (LPG), and propane. Given that LPG and propane usage are relatively small compared to diesel, we believe that the special fuel usage numbers are adequate indicators of diesel usage.

haul traffic will change their refueling patterns significantly.

Regarding the argument that the benefit of the LED rule will be realized mostly out of state because of the size of the locomotive fuel tanks, the commenter fails to quantify how much of the fuel purchased out of state is burned in the Houston non-attainment area, or how much of the fuel purchased in the covered area is burned in this area. Even though some fuel purchased in Texas will be burned out of State, there will still be some amount of LED fuel purchased and burned within the Houston nonattainment area which would result in some emission reduction there. As we noted in the response to Issue 1.7, 15 percent of national railroad purchases of diesel fuel are in Texas. So we expect the emission reduction would still be significant.

2.4 The Environmental Benefit of the LED Rule Is Uncertain or Overstated Because Texas Has Failed To Determine How Alternative Formulations Will Be Tested To Determine if They Achieve Equivalent Emission Reductions

ATA asserts that Texas has failed to determine how alternative formulations will be tested to determine they achieve equivalent emissions reductions. The proposed rule has no explanation of the baseline fuel to be used for comparison with the alternative formulation; there is no mention of which engines are tested for equivalency; and there is no mention of what operating conditions are simulated.

Response: Both the proposed and final versions of the LED rule for the Houston SIP, as submitted to EPA in December, 2000, include provisions for determining how alternative formulations will be tested to see if they achieve equivalent emission reductions. No changes have been made to these sections in the revisions requested for parallel processing by the Governor on June 15, 2001, or in the final version of the LED rule adopted September 26, 2001, submitted to EPA on October 4, 2001, and approved by EPA in today's rulemaking. (*See* rule revisions on TNRCC website at *http://www.tnrcc.state.tx.us/oprd/sips/houston.html#revisions,* and in Rule Log 2001–007d–114–AI.) These provisions, as specified in section 114.312(g), are in section 114.315(c) of the LED rule, and are modeled on the procedures used by California in determining equivalent emission reductions of alternative formulations of California diesel fuel. (*See* Title 13, California Code of Regulations, 2282(a)(1)(C) and (g).)

Although the LED rule provisions for this purpose are not identical to those of California, they are very similar. The LED rule provides for testing the ''candidate'' fuel, *i.e.,* the alternative formulation, against a ''reference'' fuel, *i.e.,* the baseline fuel, which must have cetane, aromatics and sulfur levels meeting the standards for ''conventional'' LED fuel. The two fuels must be tested for exhaust emissions using a Detroit Diesel Corporation Series-60 engine or an engine specified by the applicant and approved by the executive director of TNRCC to be equally representative of the post-1990 model year heavy duty diesel engine fleet. A minimum of five exhaust emission tests must be conducted in accordance with Federal Test Procedures for Control of Emissions from New and in-Use Highway Vehicles and Engines: Emissions Regulations for New Otto-Cycle and Diesel Heavy Duty Engines—Gaseous and Particulate Exhaust Test Procedures, dated 1998. (40 CFR part 86, subpart N.) These procedures are for transient cycle testing, which is intended to represent actual in-use driving conditions.

Alternative formulations can only be approved by the executive director of TNRCC if the director finds that the candidate fuel has been properly tested in accordance with these provisions and makes the determinations specified in section 114.315(c)(5) regarding the average individual emissions of the candidate fuel compared to those of the reference fuel.

2.5 A Process Is Needed To Protect Consumer Interests During the Development of Alternative Emission Reduction Plans

TMTA stated that a process is needed to protect consumer interests during the development and approval of alternative emission reduction (AER) plans under proposed section 114.318, which allows producers to submit plans for substitute fuel strategies that are determined to achieve an equivalent level of reductions as the LED fuel which is regulated specifically. TMTA acknowledges that TNRCC's executive director and EPA must approve such AER plans, but notes the lack of details and the potential for market manipulation that may result if each proposal is not given proper scrutiny by affected entities. TMTA requests that a process be instituted to enable diesel fuel users to evaluate and comment on any proposed AER plan submitted to TNRCC.

Response: EPA made comments to TNRCC on July 2, 2001, regarding section 114.318 and the ability of producers to submit AER plans. (See letter dated July 2, 2001, from Thomas Diggs to Herbert Williams in the docket for this rulemaking.) We expressed similar concerns about the implementation of this section and the ''market share'' approach it seems to allow for estimating equivalency of emission reductions. Since EPA's approval of such plans is required, in addition to approval of TNRCC's executive director, we will be working with TNRCC on the implementation of this section, and will consider the request made by this commenter as the procedures are developed, by providing for public notice and comment.

Issue 3: Federal Preemption and the Necessity Showing Under CAA Section 211(c)(4)(C)

3.1 General Preemption Comments

ATA and BCCA argue that the federal Clean Air Act preempts the LED rule under 211(c)(1), and Texas has failed to meet the statutory test for a waiver of preemption under CAA 211(c)(4)(C) and object to EPA's finding.

ATA and BCCA support adopting federal diesel rules for Texas. EPA should use this opportunity to move the overall national regulatory strategy for diesel fuel away from the patchwork quilt of boutique fuels towards a single national fuel standard, as Congress originally intended. In regulating mobile sources under the Clean Air Act, Congress intended to avoid subjecting mobile sources to a patchwork quilt of separate state controls, recognizing that allowing each state to go its own way could be difficult for manufacturers and users. ATA cites Senate report No. 192, 89th Congress, 1st Session. 5–6 (1965).

Response: The statutory preemption in CAA section 211(c)(4)(A) and the corresponding standard in section 211(c)(4)(C) for a ''waiver'' of this statutory preemption are central to many of the issues raised by commenters. To the extent that a waiver of preemption is required, EPA believes that Texas has met the statutory criteria for justifying EPA's approval of the LED measure into the HGA SIP, thus waiving federal preemption of the state's fuel measure for highway diesel fuel.

As we explained in the preamble to the Notice of Proposed Rulemaking and in the Technical Support Document, section 211(c)(4)(A) generally prohibits the state from prescribing or attempting to enforce controls respecting motor vehicle fuel characteristics or components that EPA has controlled under section 211(c)(1), unless the state control is identical to the federal control. This statutory preemption does

not apply to the state's control of fuel content for nonroad engines, since this fuel is not used in ''motor vehicles'' as that term is used in the CAA. Thus, the Texas LED rule, which applies to diesel fuel for both highway and nonroad use, is not preempted under this statutory provision to the extent it applies to diesel fuel for nonroad use.

For a state fuel control which is subject to the section 211(c)(4)(A) preemption, the CAA does provide an exception in section 211(c)(4)(C). Under this section, EPA may approve a non-identical state fuel control as a SIP provision, if the state demonstrates that the measure is necessary to achieve a NAAQS. EPA may approve an otherwise preempted state fuel measure as necessary if no other measures would bring about timely attainment, or if other measures exist and are technically possible to implement but are unreasonable or impracticable. EPA may make a finding of necessity even if the plan for the area does not contain an approved demonstration of timely attainment.

EPA has reviewed numerous state fuel controls for approval into SIPs under section 211(c)(4)(C). In 1997, EPA issued guidance for EPA regions and States on the use of fuel options in ozone SIPs. (See ''Guidance on Use of Opt-in to RFG and Low RVP Requirements in Ozone SIPs,'' August, 1997, U.S. Environmental Protection Agency, Office of Mobile Sources, at: *http://www.epa.gov/otaq/fuels.htm#rvp.*) This guidance was directed primarily at state requirements for low Reid Vapor Pressure (RVP) of gasoline, since that was the principal type of fuel control which states had adopted to date. It sets forth guidelines for application of the statutory test in section 211(c)(4)(C), explaining the following demonstrations which a state should make in showing that its fuel measure is ''necessary,'' and justifying its request for a waiver of preemption:

(1) Identification of the quantity of reductions needed to reach attainment;

(2) Identification of other possible control measures and the quantity of reductions each would achieve;

(3) Explanation for rejecting alternative control measures as unreasonable or impracticable; and

(4) Demonstration that reductions are needed even after implementation of reasonable and practicable alternatives, and that the fuel measure will provide some or all of the needed reductions.

Texas followed these guidelines in making its request to EPA for approval of the LED measure into the Houston SIP. EPA agrees that Texas has demonstrated the need for the LED measure pursuant to the statutory test in section 211(c)(4)(C), as explained in detail in the TSD. We address specific comments on the details of this necessity showing in responses to Issues 3.2 through 3.9 below.

We acknowledge, as ATA notes, that Congressional intent in regulating mobile sources of air pollution was to avoid a ''patchwork quilt'' of separate state controls in an effort to prevent difficulties for manufacturers of vehicles and fuels, and that this is consistent with the statutory preemption of state fuel controls in section 211(c)(4)(A). Congress specifically provided an exception to preemption, however, in section 211(c)(4)(C) for state fuel controls that are necessary for achievement of a NAAQS. This exception is consistent with Congressional intent for state flexibility in choosing control measures in meeting federal CAA requirements. This statutory scheme balances the need for national uniformity against the state's flexibility to choose the most appropriate control measures for each state.

EPA recognizes the concerns associated with the potential disruption caused by numerous state (or ''boutique'') fuels. In most situations, EPA believes that a uniform national program is the best way to protect public health and minimize disruption to the country's efficient fuel distribution network. As the number of state fuels increases, so do the potential problems associated with a disruption of the fuel distribution network. Therefore, EPA's general expectation is that states will limit state fuel programs that differ from Federal standards to situations where local or unique circumstances warrant control. Texas has demonstrated that the Houston area's attainment of the 1 hour ozone NAAQS in 2007 can only be achieved with a combination of all reasonable control measures, including the LED measure, that are being adopted now, together with an enforceable commitment to adopt control measures in the future to fill the emissions shortfall which remains after adopting the current control measures.

3.2: Explanation of Why Other Control Measures Are Unreasonable or Impracticable

ATA states that under the statutory test for waiver of preemption, Texas has failed to analyze whether other control measures could be implemented to achieve the ozone NAAQS.

ATA further argues that in analyzing whether other control measures are ''unreasonable'' or ''impracticable,'' EPA must independently determine whether the state has met a very heavy burden in showing that all other ozone control measures are either incapable of being performed or not reasonable because their implementation might result in exorbitant costs or be viewed as an irrational choice for pollution abatement. To merely find that a boutique fuel will reduce air emissions or is less costly or easier to implement than an alternative control measure is an insufficient basis for approving a fuel preemption waiver, and would render Section 211 meaningless.

Response: Section 211(c)(4)(C) currently provides, ''The Administrator may find that a State control or prohibition is necessary to achieve that standard if no other measures that would bring about timely attainment exist, or if other measures exist and are technically possible to implement, but are unreasonable or impracticable.'' ATA argues that whether an alternative control measure is reasonable or practicable must be determined in absolute terms, without comparison to the fuel measure being considered. EPA does not agree that this type of determination is compelled by the Act. To the contrary, the current language of section 211(c)(4)(C) represents Congress' ratification of EPA's long held interpretation that States may justify a fuel control as necessary when the alternatives by comparison would be more drastic, unpopular, costly or slower to implement.

The ''reasonable and practicable'' language in section 211(c)(4)(C) that ATA points to derives from EPA's interpretation of the pre-1990 language of 211(c)(4)(C). *See* 53 FR 30224, 30228–29 (Aug. 10, 1988) (Maricopa County SIP Approval). Before the 1990 Clean Air Amendments, the Act allowed SIP approval of otherwise preempted state fuel controls if such controls were ''necessary'' for timely attainment, but the Act was silent on the criteria for determining what was ''necessary.'' In amending the Clean Air Act in 1990, Congress adopted EPA's interpretation of ''necessary'' directly into the statutory language.

Because Congress effectively ratified EPA's pre-1990 interpretation of ''necessary,'' it is valuable to review EPA's approach in making the necessity determination in SIP approvals prior to the 1990 Amendments. In those rulemakings, EPA repeatedly made clear that the determination of whether there were other reasonable or practicable alternatives involved some comparison with the proposed State fuel control. *See* 54 FR 19173, 19174 (May 4, 1989) (''EPA need look at other measures

before RVP control, only if it has clear evidence that RVP control would have greater adverse impacts than those alternatives. EPA has no such evidence here. Therefore, EPA can defer to Massachusetts' apparent view that RVP control is the next less costly (or is itself reasonable) measure. Thus, EPA concludes that Massachusetts' RVP regulations are 'necessary' to achieve the NAAQS.''); 54 FR 23650, 23651 (June 2, 1989) (finding same in approving Connecticut and Rhode Island RVP programs); 54 FR 37479, 37481 (Sept. 11, 1989) (stating in approval of Maine RVP, ''In addition, none of the available control strategies which could achieve the same magnitude of reductions as limiting the RVP of gasoline can be as quickly implemented'').

ATA's argument is not new. In comments on both the New York and New Jersey RVP SIP approvals, commenters claimed that, ''EPA's method for determining what is necessary is too vague because it would allow EPA to approve state fuel controls 'simply because alternative measures are more inconvenient, unpopular, or costly.' '' 54 FR 25572, 25574 (June 16, 1989); *see* also 54 FR 26030 (June 21, 1989). In responding to these comments, EPA explained:

> This judgment concerning what is too drastic is a complicated policy determination requiring the Administrator to weigh precisely those factors which the commenter would exclude from [the Administrator's] consideration—whether the remaining alternatives are costly or unpopular. * * * EPA's and New Jersey's analysis of reasonably available controls is based on a factual record supported by the best analytical tools the agencies had available to them at the time. EPA's judgment that State fuel regulation is a less drastic course than gas rationing and other unpopular controls so far not implemented in any SIP is clearly a matter on the frontier of air pollution control planning, and therefore cannot (and need not) be supported by the same technical record as, for example, EPA's determination of [the emissions reductions needed] to attain the standard.

54 FR at 25574; *see also* 54 FR at 26033. In both the New Jersey and New York approvals, EPA reiterated the comparative nature of the analysis of alternatives:

> To be sure, if there were sufficient evidence for EPA to conclude that the state's RVP controls would result in significantly more severe impacts than other measures that neither EPA nor the state has yet identified as ''reasonable'' for the state to implement, then it might well be appropriate for the Agency to account for the emission reductions that those other measures would achieve before determining the shortfall against which to judge the RVP controls. The Agency does not believe, however, that the State's RVP control would produce significantly more severe effects than such alternatives (e.g., than a trip reduction ordinance of the type that Arizona found reasonable for application in Phoenix and Tucson).

54 FR at 26034–35; *see also* 54 FR at 25576.

EPA's current interpretation is consistent with the pre-1990 interpretation implicitly adopted by Congress. EPA's August 1997 *Guidance on Use of Opt-in to RFG and Low RVP Requirements* (''1997 Guidance'') explains:

> In determining whether other ozone control measures are unreasonable or impracticable, reasonableness and practicability should be determined in comparison to the [fuel] measure that the state is petitioning to adopt. This is not an abstract consideration of whether the other measures are reasonable or practicable, but rather a consideration of whether it would be reasonable or practicable to require such other measures in light of the potential availability of the preempted state fuel control. Some measures may be reasonable and practicable for certain areas of the country, but given the advantages of a [fuel] requirement under the specific circumstances of the particular area, the other measures may be comparatively unreasonable or impracticable. Finding another measure unreasonable or impracticable under this criteria would not necessarily imply that the measure would be unreasonable or impracticable for other areas, or even the same area, under different circumstances.

1997 Guidance at 6.

The Guidance also reviews factors which may be used in comparing control measures, as follows:

> While the basis for finding unreasonableness or impracticability is in part comparative, the state still must provide solid reasons why the other measures are unreasonable or impracticable and must demonstrate these reasons with adequate factual support. Reasons why a measure might be unreasonable or impracticable for a particular area include, but are not limited to, the following: length of time to implement the measure; length of time to achieve ozone reduction benefits; degree of disruption entailed by implementation; other implementation concerns, such as supply issues; costs to industry, consumers and/or the state; cost-effectiveness; or reliance on commercially unavailable technology. A strong justification for finding a measure unreasonable or impracticable may depend upon the combination of several of these reasons. Regions should consider as many of these factors as may apply in evaluating each measure that a state rejects as unreasonable or impracticable. Also, small differences in overall costs or cost-effectiveness are generally not sufficient to make a measure unreasonable, and states should not attempt to justify fuel requirements on that basis alone. Cost is one component of an overall assessment of comparative reasonableness and practicability.
>
> For example, two programs may achieve comparable emission reductions, but implementation of the measure other than the state fuel measure may involve substantially more disruption by requiring development and imposition of a new state regulatory program, together with significant capital investment in necessary technology. In addition, these hurdles to implementation may mean that there would be a substantial comparative delay in emissions reductions. Under such circumstances, the other measure may well be unreasonable in comparison to a fuel requirement.

1997 Guidance at 6.

EPA believes this interpretation reasonably preserves a State's ability to address its air quality problems in an efficient and timely manner. It also reflects the reality that the reasonableness and practicability of control measures is dependent on the circumstances faced in a particular area and the suite of options available to address the particular problems. EPA also believes, contrary to ATA's claim, that Texas has analyzed whether other control measures could be implemented. EPA reviewed that analysis in the TSD, and responds to specific comments on that analysis in responses to Issues 3.4, 3.5, and 3.6 below.

3.3: Explanation of Why Other Control Measures Are Unreasonable or Impracticable-Premature To Assess This Now When Texas Must Still Identify Future Control Measures To Fill the Emissions Shortfall, and the LED Rule Will Not Be Implemented Until 2005

ATA and TMTA commented that because the Texas SIP contains only enough control measures to achieve the NAAQS in part, and leaves a NO_X emissions shortfall for which Texas makes an ''enforceable commitment'' to fill in the future, it is premature to determine whether the State has met the statutory test of necessity when it is impossible to analyze other possible control measures. EPA must review the additional control measures Texas will adopt in the future before making a Section 211(c)(4)(C) determination on the LED measure, which will not take effect until 2005.

ATA further states that by delaying implementation of the LED rule until 2005, Texas has made it premature for EPA to grant a fuel waiver since Texas must determine by 2004 what other measures will be used to meet attainment. One stated purpose of the delay to 2005 is to allow for alternative emission reduction plans, but despite this purpose, Texas is asking EPA to grant a preemption waiver for a fuel that

will not be used for four years. It is impossible to predict what mix of control measures will be needed in 2005 to reach attainment in 2005 and beyond. EPA should conduct a public workshop and publish a formal request for information to identify all potential NO_X control measures, obviating the need for boutique fuel formulations.

Response: EPA disagrees with commenters' claims that necessity cannot be determined until all of the control measures necessary for demonstrating attainment have been identified. The interpretation offered by ATA and TMTA would be in direct conflict with the language of 211(c)(4)(C) and has been repeatedly rejected by EPA.

ATA and TMTA argue that because the SIP identifies a shortfall in the needed emissions reductions and commits the State to implement control measures in the future, it is premature to find the fuel measure necessary because other measures will need to be adopted and may be more reasonable. Under this interpretation, no state fuel controls could be approved into a SIP unless the SIP provided a final demonstration of attainment. For all other SIP revisions, where a shortfall of emissions reductions is identified, a fuel control could not be found to be necessary because other alternative controls would eventually need to be adopted and those other measures may be more reasonable than the fuel measure or provide sufficient benefits to offset the need for the fuel control.

This result is expressly rejected by section 211(c)(4)(C), which provides ''The Administrator may make a finding of necessity under this subparagraph even if the plan for the area does not contain an approved demonstration of timely attainment.'' In other words, Congress expressly allows approvals of fuel controls into a SIP before a final demonstration of attainment is made.

The language in 211(c)(4)(C), added as part of the 1990 Amendments, again represents a ratification of EPA's pre-1990 interpretation that necessity under 211(c)(4)(C) can be demonstrated even though the SIP approval acknowledges an emissions reduction shortfall and implicitly anticipates the need for additional future controls. *See, e.g.,* 54 FR at 37481 (proposing approval of a Maine State fuel control); 54 FR at 19174 (approving a Massachusetts State fuel control); and 54 FR at 23652 (approving State fuel controls for Connecticut and Rhode Island). In the 1989 approvals of the New York and New Jersey low RVP control programs, EPA explained that it does not interpret section 211(c)(4)(C) to require a complete demonstration of attainment in order to approve a fuel control measure:

> Forcing a state to demonstrate attainment before allowing it to adopt stricter fuel controls would yield perverse results. Areas with the worst ozone nonattainment problems, which have the most difficulty assembling a demonstration of attainment, would be disabled for perhaps several years from adopting clearly necessary controls. * * * Several commenters noted that New Jersey so far has not been able to identify any combination of control measures which would bring the State into attainment. It is precisely in areas like New Jersey, with an especially difficult nonattainment problem, where the expeditious implementation of new controls, and hence the finding of necessity under section 211(c)(4)(C), is most appropriate.

54 FR at 25573–74; *see also* 54 FR at 26032 (finding same for New York).

ATA also suggests that because additional controls must be identified in 2004, before the LED implementation date in 2005, EPA cannot determine that reasonable and practicable alternatives will not be available. TMTA argues further, that the finding of necessity is inconsistent with EPA's presumption that such reasonable or practicable controls will be available by 2004.

At the outset, TMTA's assertion that EPA has presumed reasonable and practicable measures will be available in the future is unfounded. Texas developed a list of measures that it is able to implement but could still not provide enough NO_X reductions to meet the attainment goal. As a result, the State must look to the future for emerging technologies and other newly available measures to fill its enforceable commitments. EPA's approval of the SIP with enforceable commitments, however, is not dependent on any assumption as to the reasonableness or practicability of these future controls. In all likelihood, the State will need to explore more and more drastic control measures to fulfill the enforceable commitments made in this SIP.

EPA and the State have canvassed an extensive array of control measures and adopted or counted the emissions reductions of a number of measures that have not been implemented as part of any other SIP. These options reflect the combined efforts of multiple agencies and stakeholders and represent the set of controls that these groups believed were worthy for State consideration. This list will certainly change over time, as will the assessment of the reasonableness and practicability of these controls. It is not reasonable, however, to prevent the State from moving forward with fuel controls based on the inherently changing nature of the list of alternatives. Based on the information before the State and EPA at this time, it is reasonable to conclude that the LED program is necessary under 211(c)(4)(C) because the alternatives known to the agencies are not considered reasonable and practicable at this time. Whether new controls are identified in the future or currently identified controls become more reasonable at a later date, does not affect the rational basis supporting EPA's action today.

ATA's claim that necessity cannot be demonstrated until later because the State has provided lead time for implementing the LED control that extends beyond the 2004 date for identifying additional controls, further ignores the reality of the situation being faced by the State. The State concluded that significant lead time will be required for refineries to implement the LED program. Notwithstanding the extended time needed for implementation, the State and EPA have still concluded that the control is necessary because no other reasonable or practicable alternatives are available that would achieve timely attainment. If the State were forced to wait until 2004 to finally adopt the LED program into the SIP, it could be 2009 before the program could be reasonably implemented. Alternatively, if the State maintained the LED program as an adopted program but waited for SIP approval around 2004, refiners would be put in the difficult position of trying to decide whether to make the necessary investments to comply with the State rule should it be approved. Neither outcome is a reasonable approach to implementing the Clean Air Act and neither is consistent with section 110(a)(2) of the Act which requires attainment ''as expeditiously as practicable.''

3.4 Explanation of Why Other Control Measures Are Unreasonable or Impracticable—Measures for Which There Is No Explanation of Justification

ATA shows there are 21 control measures listed in Appendix L of the HGA SIP for which Texas claims it had insufficient information to evaluate for possible adoption. This list of measures contains no explanation why they meet the statutory standard of being ''unreasonable or impracticable'' to adopt.

TMTA also argues that Texas failed to explain why other more cost-effective measures are unreasonable or impracticable. Some of the measures in Appendix L, the ''initial list of brainstorming ideas,'' were transformed

into proposed rules while others were not. For those measures not incorporated into the SIP, Texas has not justified why these measures were deemed ''unreasonable or impracticable.'' A more thorough review is necessary.

Response: Appendix L consists of the list of more than 200 brainstorming ideas that was generated by TNRCC (State of Texas), EPA Region 6, California contacts, and stakeholders. The process of brainstorming involves listing all ideas suggested without making any judgment on them, and without necessarily knowing what each idea entails. The list was later categorized by the State to reflect its evaluation of the merits of each option as known at that time. When the list was developed during the SIP development process, not much was known about some of the options. Many that fell into that category turned up on ATA's list of measures for which it claims a more thorough review is necessary. At the time the SIP was adopted, the State continued to lack sufficient information for most of these measures to make an informed decision about credit values that could be assigned to them as well as effective implementation strategies. Other criteria that were used to determine if options were reasonable or practicable are whether legislative authority would be necessary and the difficulty (hence the effectiveness) of enforcement to bring about real reductions. Most of these measures have not been adopted into ozone SIPs anywhere in the country. A few of these measures may be re-considered for future attainment plans to fill the emissions shortfall, or have been incorporated into HGA's programs for Voluntary Mobile Emissions Programs (VMEP) and/or Transportation Control Measures (TCM) for very limited, if any, credit in current or future attainment plans, but are so small that they could not begin to fill the 56 tpd NO_X emissions shortfall.

Control option	What we know/what we don't know
Require purchase of emission reduction credits to offset upset emissions of NO_X.	The State is uncertain about what this idea entails. There is already a provision in the current Mass Cap and Trade rules covering exceptional circumstances.
Expanded I/M Light-duty diesel & Expanded I/M Heavy-duty Diesel.	EPA has not certified a technology for diesel inspection and maintenance that addresses NO_X reductions; this is still an emerging technology. The State has listed Diesel I/M as a possible future control strategy on p. 7–40 and 43 of the HGA SIP attainment demonstration.
Remove speed bumps & Traffic calming (reduce fast starts/stops).	These Transportation Control Measures appear to do the same thing by eliminating starts and stops. Preliminary studies have shown the benefit to this TCM to be in pounds per day rather than tons per day.
Restrict private traffic control officials on Regional Computerized Traffic Signal System streets (RCTSS).	This measure would prohibit businesses from placing cops-for-hire at exits to employee parking lots at close of business. This type of traffic control activity conflicts with automated signalization on the RCTSS streets. The benefit is dubious based on the amount of idling that would result in the employee parking lot while motorists waited to dart into moving traffic. No known studies on this.
Consider merging all regional mass transit into 8-county mass transit authority to better coordinate programs.	Implementing this measure would require a legislative change as well as local voter approval. The benefit, if any, for this measure is unknown, and would depend on the success of such a merger in increasing use of mass transit and decreasing VMT. This could take many years to establish.
New technology (Guided bus)	No one knows enough about this new technology to know if implementing this technology would produce a benefit or be cost-effective.
TRANSTAR expansion & TRANSTAR: Incident detection system (covers 20 miles of freeway corridor).	TRANSTAR expansion appears in the VMEP but is assigned zero credit for implementation.
Air conditioner use assumptions in emissions model plus reduction options.	These are not control measures, therefore cannot be considered as a reasonable or practicable measure. When MOBILE6 is released for use, these factors will be included in future modeling. They are not included in MOBILE5 modeling which is required for use in this attainment demonstration.
Adjustments to Modeling assumptions: Emissions model deterioration rate.	
Adjustments to Modeling assumptions: Speed controls by type of vehicle.	The State is uncertain which type of vehicles would be speed controlled and in what manner.
2005 Registration fee for diesel engines. To be waived for CNG engines.	Texas Senate Bill 5, signed by the Governor on June 14, 2001, imposes a surcharge on the registration of a truck-tractor or commercial motor vehicle in an amount equal to 10 percent of the total fees due for the registration of the truck-tractor or commercial motor vehicle. This was effective September 1, 2001. There would be little if any NO_X benefit to convert to CNG because CNG is directed more toward non-methane hydrocarbon, CO2, mass of particulate matter, and air toxic emissions.
Combustion control (Off-road mobile sources)	Senate Bill 5 (TERP) also addresses this control option. See response to issue 3.5 for description of TERP, and issue 3.6 for explanation of how TERP emission reduction credits in excess of credits from repealed rules can help fill the emissions shortfall.
Fertilizer substitutions	Fertilizer is a part of the NO_X emissions inventory under biogenics (18 tpd). Reducing the biogenic portion of the inventory has not been studied enough to provide any certainty on effective control measures.
Airplane ground operations—taxiing; scheduling	Although planning of airline operations during rush hours to reduce idling on runways to reduce emissions may have merit, the State does not have the authority to impose regulations on airlines to require this planning. The Federal Aviation Administration has jurisdiction over airline operations once the aircraft leaves the gate. The State executed agreed Orders with the major airlines and the City of Houston to achieve emission reductions from Ground Support Equipment (GSE) at airports in the HGA area, which does not apply to planes.
Contract incentives (construction industry)	This measure is being implemented in the HGA VMEP as one part of the Local Government Emission Reduction Program. Credits generated from the Texas Emission Reduction Plan (TERP) can be used in this measure once they become available.

Control option	What we know/what we don't know
Regulate speed and course in Texas water of Gulf of Mexico	The Houston-Galveston Area Council investigated this control measure as part of the VMEP. It was not considered feasible for the HGA area. Two reasons were cited. Ships already operate at reduced speed during their time in the Houston Ship Channel so only small speed reductions are possible. Second, even small reductions in speed raise safety concerns by the Harbor Pilots because of potential loss of steerage.
Emission controls (offshore sources) & Restriction on use of off-shore equipment at certain times of day/week/season.	EPA, along with the U.S. Department of Interior—Minerals Management Service conducted a modeling evaluation of the impacts from emissions of offshore sources on ozone nonattainment areas in Texas and Louisiana. A field study was conducted in 1993, and the final report was completed in 1995. Based on the modeling completed, the overall impact from these offshore sources was deemed to be small. Texas has limited ability to regulate offshore sources, being confined to those sources within State waters (within 10 miles of the coast). Section 209(e) prohibits State controls of non-road engines unless the measure is identical to one approved by EPA for California. See Engine Manufacturers Ass'n v. EPA, 88 F. 3d 1075 (D.C. Cir. 1996).

3.5: Explanation of Why Other Control Measures Are Unreasonable or Impracticable-Measures for Which There is Inadequate Explanation of Justification

ATA comments that there are eight categories of control measures rejected by Texas which cannot be summarily dismissed as unreasonable or impracticable. EPA failed to conduct an independent analysis of these rejected measures, and failed to analyze whether each rejected measure is, by itself, unreasonable or impracticable but only compared each measure to the LED rule. Finally, the list of 200 measures which Texas relied on in its planning process is dated 2/99, more than two years ago, and is outdated, especially considering the 2005 implementation date of the LED rule. The eight categories are:

(A) Expanding control measures beyond the HGA non-attainment area (focus is on Major Point Source NO_X reduction controls, *i.e.*, power plants)

(B) Expanding vehicle I/M requirements.

(C) Expanding speed limit reductions.

(D) Expanding vehicle idling restrictions.

(E) Three variations of driving restrictions.

(F) Four control measures identified in App L as ''economically infeasible,'' including LED fuel. The others are an emission-based registration fee; a clean-fueled shuttle; and a gas tax increase.

(G) Accelerated purchase of low NO_X engines (Tier 2 and Tier 3 diesel equipment) and early (pre-2004) introduction of lower emission HD trucks and buses through market-based incentives.

(H) Construction shift.

Response: ATA claims the list of 200 measures used in the Texas planning process is outdated, especially considering the 2005 implementation date of the LED rule. Although the list is outdated in some respects with more than two years of hindsight, we disagree with the implication that it was not reasonable for Texas to proceed from that list to choose measures such as the LED rule which will be implemented several years in the future. As noted above in our response to issue 3.4, the Texas planning process for this 2001 attainment demonstration deadline involved numerous stakeholders and a time-consuming review of measures which originated with brainstorming and progressed to an evaluation of the then-known advantages and disadvantages of the 202 measures listed in Appendix L. The planning process led to choices for the State's rulemaking effort, another time-consuming process which is required in order to provide public notice and comment on the State's proposed controls and to meet the CAA standards for SIP measures. Following adoption is the time required to implement the measures, which in some cases may take several years.

The process beginning in 1999 or earlier is necessary to meet the 2001 deadline and the eventual 2007 attainment date. The CAA specifically requires interim deadlines or milestones for states with attainment dates many years in the future in order to prevent a state from waiting until the last minute to find ways to achieve attainment, in recognition of the time required to identify, evaluate, propose, adopt, and implement controls. Some of the rejected measures in Appendix L will be re-considered by the State to fill the emissions shortfall from this attainment demonstration, but Texas made reasonable decisions in choosing from measures identified in 1999 from which it has proceeded to adopt the measures we are approving today.

The first four measures listed above are measures which ATA claims could be adopted in the areas beyond the HGA non-attainment area and have not been analyzed sufficiently to reject them as reasonable alternatives to the LED rule. We disagree. In addition to considering and adopting control measures within the three ozone non-attainment areas in Texas (HGA, DFW, and BPA) to meet their respective attainment obligations, Texas considered adopting many of the same measures for the 95 attainment counties of eastern and central Texas. As discussed in the response to issue 3.7, both ozone and its precursor NO_X and VOC emissions can be transported from the attainment areas into the non-attainment areas. The transport influence of ozone and NO_X emissions into the HGA non-attainment area is strongest within the attainment areas that are up to 50 and 200 kilometers of the HGA area, respectively.

Texas adopted a regional SIP strategy for the 95 counties after considering the expected benefit for the non-attainment areas as well as the costs to be imposed on the residents of the 95 attainment counties. Some of the 95 counties are more populated than others but the population density of the 95 counties is much less than in the HGA non-attainment area, as noted below. The strategy included two measures for VOC reductions (Stage I vapor recovery control and low RVP gasoline control), approved into the Texas SIPs on December 20, 2000, (at 65 FR 79745), and April 26, 2001 (66 FR 20927), respectively, and one measure for stationary source NO_X controls, approved into the Texas SIPs on March 16, 2001 (at 66 FR 15195). Additionally, Texas adopted speed limit reductions and vehicle I/M requirements as part of the DFW SIP in five of the 95 attainment counties, those nearest DFW, where population size and VMT is large enough to show a significant benefit. More detail on the NO_X control measures is provided below for the first three measures listed, but we believe Texas has made reasonable choices in assessing the possible control measures

to be adopted in the 95 counties after considering their likely benefit for the non-attainment areas and the size of the population that would bear the cost of the control.

We also note that for the following alternative measures, even if the measures were considered reasonable and practicable, they would have to provide enough emission reductions to fill the 56 tpd NO_X emissions shortfall completely in order to displace the need for the LED rule. Many of these measures would yield small reductions, as noted in discussion of such measures.

Expanding Control Measures Beyond the HGA Non-Attainment Area—(Focus Is on Stationary Source NO_X Controls)

Texas rules for stationary sources in attainment areas are already more stringent than Federal rules for attainment areas. For stationary source NO_X controls in the attainment area, the State rules require all grandfathered sources to reduce their emissions by 30 percent, all grandfathered utilities to reduce emissions by 50 percent, and cement kilns to reduce by 30 percent. New sources in the attainment areas must meet Federal Prevention of Significant Deterioration requirements which may require controls be put in place depending on emission levels.

The 30 percent control for cement kilns is consistent with EPA's Alternative Control Techniques (ACT) for Cement Plants. See EPA–453/R–94–004. There are no requirements for cement kilns in HGA, DFW, and BPA because there are no cement kilns there. Technology to reduce NO_X emissions beyond 30 percent for cement kilns is not cost-effective, although some cement kilns in the attainment area near DFW were able to reduce emissions by as much as 50 percent. All kilns cannot be controlled in the same way or to the same degree due to technology differences in the kiln type, design, and operation. The 50 percent reduction requirement for utilities was determined by examining the most cost-effective controls. Because most of these facilities are grandfathered they had few controls, if any, to start with. Combustion control was determined to be the most cost-effective control for these facilities. The annualized cost to install and operate combustion controls on utilities is estimated at $4,000 per ton of emissions reduced. Thirteen of the utilities affected by this rule are municipal or electric cooperatives. The coal-fired utility in San Miguel will spend more ($5,288/ton) for 4,768 tons of reductions, while the municipality-owned stationary gas turbines will be less than $4,000/ton. Small business emission reduction controls are also expected to average about $4,000/ton. Small increments of additional NO_X reductions for utilities were expected to run $10,000/ton. For this reason, the cost/benefit ratio goes up dramatically past 50 percent for utilities.

In the nonattainment areas of HGA, DFW, and BPA, Selective Catalytic Reduction was determined to be the most cost-effective means of control because combustion controls had already been applied to sources in those areas and further NO_X reductions were still needed in these more populated areas. In response to a comment from TXU (Texas Utilities) on the State's NO_X point source rulemaking, the State responded that regarding cost for increasing reductions from 70 percent to 88 percent, it was determined that an average cost to do so could be as high as $7,500/ton depending on the type of unit being retrofitted. For grandfathered utilities this cost would be on top of the initial costs for combustion controls plus other measures, which we have not discussed, to increase reductions from 50 to 70 percent. Therefore, not even accounting for all costs, the estimated cost per ton for these small sources is well over $10,000/ton. For this reason, the cost/benefit ratio goes up dramatically past 50 percent for utilities. We agree this is unreasonable in attainment areas where a smaller population would bear the larger cost.

Expanding Speed Limit Reductions Beyond the HGA Non-Attainment Area

Speed limit reductions have been implemented in five attainment counties that adjoin the DFW nonattainment area. These counties have a significant amount of vehicle miles traveled (VMT) and ample fleet size to justify expanding this measure beyond the 4-county area, and the resulting emission reduction is reflected in the DFW SIP for its attainment of the 1 hour ozone NAAQS.

Population density in the remaining attainment counties is about 83 persons per square mile.[9] In the HGA nonattainment area (including 3 mostly rural counties whose total population is 116,000,) the population density is 502 persons per square mile. This measure would have a very small benefit due to the low VMT in the counties nearest to HGA. Considering the high degree of cost and disruption involved in implementing and enforcing speed limit reductions in areas with such low population density and VMT, the measure would be unreasonable and impracticable.

For example, Montgomery County is part of the HGA nonattainment area, not considered rural, but much less urbanized than Harris County, which is the core county in the HGA. Montgomery County has a daily VMT of slightly over 5.8 million miles. Lowering speed limits in Montgomery County contributes only 1.44 tpd or 0.14 percent of needed NO_X emissions reductions. Of eight attainment counties adjoining the nonattainment counties, the average population is under 38,000 per county, and the average daily VMT is about 1.1 million miles (or less than 1/5 that of Montgomery County). This data regarding relatively low population, as well as Texas Department of Transportation (TXDOT) data,[10] support our statement that there is not a significant amount of vehicles miles traveled or ample fleet size to justify expanding this measure. The TXDOT Districts are made up of a number of counties each.

TxDOT district	Vehicles registered	VMT/day	Sq. miles
Houston District—Brazoria, Fort Bend, Galveston, Harris, Montgomery, Waller	3,675,485	67,549,266	6,732
Lufkin District—north of Houston—Angelina, Houston, Nacogdoches, Polk, Sabine, San Augustine, San Jacinto, Shelby, Trinity	264,061	8,087,867	7,538

[9] Data from the Texas Almanac, 2000–2001 edition, 1999. Dallas Morning News, Dallas, TX. pp. 131–284.

[10] Data from the Texas Department of Transportation website, at: http://www.dot.state.tx.us.txdot.htm.

TxDOT district	Vehicles registered	VMT/day	Sq. miles
Beaumont District—northeast of Houston—Chambers+, Hardin*, Jasper, Jefferson*, Liberty+, Newton, Orange*, Tyler	484,998	14,286,703	2,846 2,045+ 2,388*
			7,279 total
+Part of HGA nonattainment			+HGA
*Nonattainment counties in the Beaumont-Port Arthur nonattainment area.			*BPA
Bryan District—west of Houston—Brazos, Burleson, Freestone, Grimes, Leon, Madison, Milam, Robertson, Walker, Washington	294,645	11,114,870	8,845
Yoakum District—south of Houston—Austin, Calhoun, Colorado, DeWitt, Fayette, Gonzales, Jackson, Lavaca, Matagorda, Victoria, Wharton	310,694	10,719,104	11,025
East of Houston—There are no counties, just the Gulf of Mexico			

Expanding I/M Beyond the HGA Non-Attainment Area

Vehicle I/M is being expanded into five attainment counties in the DFW area which have opted to establish this program. These counties have sufficient population, percent of commuters, and potential growth rates to warrant implementing I/M to obtain meaningful reductions in NO_X emissions which would benefit the DFW non-attainment area, and the resulting emission reduction is reflected in the DFW SIP for attainment of the 1 hour ozone NAAQS.

With respect to the remaining attainment counties, none has opted to establish such a program, and cannot be required to do so under current state law or Federal I/M rules. Although we agree with the commenter that the fact that a legislative change is required to implement a program is not a sufficient reason to reject a control measure, we reiterate that it is the length of time that would be required to seek such changes and implement them that make the success of such a measure unpredictable and impracticable. Opposition to vehicle I/M programs in Texas historically has been strong, resulting in the legislative decision in 1997 to allow such programs in attainment counties only if those counties voluntarily decide to adopt them. It is very unpredictable whether such opposition could be overcome, even with the delay in implementation of the LED rule from 2002 to 2005.

We also consider the amount of emission reductions expected versus the cost to implement an I/M program. In the three mostly rural counties of the HGA nonattainment area, the average NO_X emission reductions from I/M is about one ton per day. The cost for one I/M testing station equipped with ASM–2 (the type of testing equipment required in the non-attainment area) is about $40,000, which means the cost per ton of NO_X reduction is at least $40,000 per ton. More than one station in a county might be required, increasing the cost per ton of NO_X reductions even more. Although this cost can be recovered when the number of vehicles is large, it is not reasonable or practicable in less populated areas with fewer vehicles, such as the 36 counties nearest HGA (as indicated in the chart above) where emissions would have the strongest influence on HGA.

Expanding Vehicle Idling Restrictions Beyond the HGA Non-Attainment Area

Idling restrictions in the nonattainment area which is congested and includes eight counties yields less than 0.5 tpd of NO_X emission reductions. Emission reductions from idling restrictions in less populated areas, especially the 36 counties closest to HGA where emissions would have the strongest influence on HGA (as noted in the chart above) would be considerably less. The cost to implement and enforce such restrictions in less populated areas where the benefit would be very small makes this an impracticable measure.

Measures Rejected Due to Technical Infeasibility

The three types of driving restrictions mentioned by the commenter are (1) restrictions on use of ''drive-through'' services, such as fast food restaurants and banks; (2) restrictions on driving by time of day or by alternate days; and (3) restrictions on driving by geographic area. No jurisdiction in the country has adopted such restrictions for ozone SIPs, with the exception of use of ''drive-through'' restrictions on a voluntary basis on ozone action days. Such voluntary measures would be subject to EPA's limit on their use in SIPs, which Texas has already met.

The impact of such driving restrictions on consumers as well as businesses, big and small, would be substantial, forcing a major examination of alternate transportation methods and drivers' access to such methods. Such restrictions would have to be examined in light of the equity of forcing drivers who have limited economic means or limited access to alternate transportation methods to find other ways to get to their places of work. Enforcement of driving restrictions is difficult, and such restrictions would likely be very unpopular. EPA agrees with the State that these measures are unreasonable and impracticable.

Measures Rejected Due to Economic Infeasibility

The State originally adopted a statewide LED program for on-highway diesel fuel, considering wider coverage to be more economically feasible than the half-state program for 110 counties, and submitted this rule for the HGA SIP. More recently, the State reconsidered the half-state program, consistent with the Texas Clean Air Strategy,[11] and asked EPA to parallel process a change to the rules for geographic coverage as well as implementation date. The State concluded that the reduction in coverage area would reduce the cost burden upon areas of the State that would not benefit as much from the use of LED as the currently covered counties, but would also continue to ensure that there was sufficient supply to the areas that need it the most. See also our response to issues 1.2 and 1.6 regarding supply and coverage in the 110 county covered area, and our response to issue 3.7 regarding the necessity showing for LED fuel in the attainment areas.

Emission-based registration fees and a gas tax increase would require legislative action. Legislative action not

[11] The Texas Clean Air Strategy is a group of measures adopted by the State on April 19, 2000, to reduce background ozone concentrations in 95 attainment counties in east and central Texas. These include Stage I vapor recovery, Low RVP gasoline, and permitting of grandfathered stationary sources. EPA approved these measures into the SIP as cited above in this response.

only takes time (because the Texas Legislature is in session only in odd-numbered years for a few months each time), but the success of such action is unpredictable and opposition to such measures is strong. The impact of such economic requirements has the most severe impact on the poorest people who tend to own older, dirtier cars and would therefore pay the highest emission based fees, and for gas taxes would be paying a higher percentage of their income, since gas taxes are not progressive, for what is a virtual necessity in terms of access to places of work. It is not clear what the identifiable benefit of these programs would be, and we agree with Texas that they would be unreasonable or impracticable at this time.

Mandates to purchase new clean fuel airport shuttles or convert existing airport shuttles to clean-fuels were rejected as unreasonable because this would be a clear economic hardship on a very small group of vehicles typically owned by small businesses. Should this measure be considered in the future, some financial incentives may be available under the TERP (as described below) or through the Department of Energy's Clean Cities program.

Accelerated Purchase of Low-NO_X Engines and Early (pre-2004) Introduction of Lower Emission HD Trucks and Buses Through Market-Based Incentives

Senate Bill 5, adopted by the 77th Legislature in June of this year, required repeal of State rules requiring the accelerated purchase of low-NO_X engines but, in their place, adopted a plan to achieve equivalent reductions through the use of economic incentives. Senate Bill 5, which includes the Texas Emission Reduction Program (TERP), is an economic incentive program to accomplish exactly what the rule mandated—to accelerate the purchase of new engines or rebuilt or retrofitted existing engines to achieve the same low-NO_X emission levels. Although most of the funds will be directed toward the nonattainment areas, funds are not restricted to the nonattainment areas. Therefore, this measure is being implemented, and has been submitted as part of the SIP which is being approved today.

The TERP is similar to California's Carl Moyer Program that provides grants to cover the incremental cost of cleaner on-road, off-road, marine, locomotive and stationary agricultural pump engines, as well as forklifts and airport ground support equipment. The TERP is also a state-funded program to provide grants, rebates, and other incentives for improving air quality throughout the State. The grant program will pay the incremental costs of repowering, rebuilding, or retrofitting on-highway vehicles and non-road equipment. A rebate program offers incentives for the purchase or lease of cleaner new on-road, heavy-duty diesel vehicles.

The Construction Shift

Pursuant to Senate Bill 5, referenced above, the Legislature revoked TNRCC's authority to implement the construction shift rule with the understanding that the incentives provided by the TERP will achieve equivalent reductions. The construction shift rule allowed operation during the morning hours only if a company presented a plan that showed how they would achieve reduced NO_X emissions. A plan using low-NO_X engines, whether new, rebuilt, or retrofitted, would have been acceptable to meet that requirement. Therefore, the TERP achieves the same goal, and the measure is being implemented. The equivalent emission reductions from the TERP were substituted for the reductions that would have resulted from the construction shift rule in the SIP we are approving today.

3.6 Explanation of why other control measures are unreasonable or impracticable-measures which Texas and EPA failed to consider at all, or which Texas has recently adopted and has failed to account for in the SIP

ATA commented that there are at least six measures which Texas did not adopt which Texas should have considered and EPA should have independently analyzed as to whether they are unreasonable or impracticable.

(A) Emissions banking and trading program (mentions new SCAQMD program)

(B) Accelerated retirement of HD vehicles

(C) Natural gas buses

(D) Phoenix voluntary early ozone plan

(E) Energy efficiencies (Building codes)

(F) Federal clean fuel fleet program

Texas failed to consider existing programs with demonstrated cost-effective emission reductions. TMTA argues that Texas is obligated to look beyond its borders to investigate control measures used in other jurisdictions before obtaining a fuel preemption waiver. A non-exhaustive list includes the following seven measures. The last two of these measures which were recently adopted in Texas need to be accounted for in the SIP analysis; since attainment was demonstrated without them, it is likely attainment can now be demonstrated by substituting these programs for the LED rule.

(A) Emissions banking and trading program

(B) Phoenix voluntary early ozone plan

(C) Accelerated retirement of HD vehicles

(D) Early introduction of low-NO_X engines

(E) Carl Moyer Memorial air quality standards attainment program

(F) Texas emissions reduction program (Senate Bill 5)

(G) Texas House Bill 2912

TMTA also commented that two non-fuel measures have been adopted by Texas since TNRCC submitted its attainment demonstration SIP to EPA, and these non-fuel measures will provide emission reductions that will make the LED rule emissions benefits unnecessary: (1) is the Texas Emissions Reductions Plan Fund, modeled on California's Carl Moyer program. If it is as successful as its prototype, the 52 [sic] tpd additional NO_X reductions required in the Houston SIP can be achieved in less than three years; (2) is a requirement that unregulated facilities in eastern Texas be permitted by 2007 and that oil and gas pipeline facilities in eastern Texas reduce emissions from internal combustion engines by as much as 50 percent.

Response: Most of the measures discussed below have already been adopted by Texas for inclusion in the SIP, whether previously approved (such as the Clean Fuel Fleet program) and therefore reflected in the baseline emissions inventory or as part of today's attainment demonstration or as plans for future attainment demonstrations to fill the 56 tpd NO_X emissions shortfall. Unless they would provide enough emission reductions to fill the 56 tpd NO_X emissions shortfall completely, they do not displace the need for the LED rule. Many of these measures would yield small reductions, as noted in discussion of such measures.

Emissions Banking and Trading Program

The comment pertained to South Coast Air Quality Management District expanding the emissions trading program by permitting stationary sources of air pollution to purchase NO_X credits from mobile sources. ATA commented that programs like these rely on the free market to produce NO_X reductions in the most cost effective manner. The TNRCC Mass Emissions Cap and Trade (MECT) EIP program for the HGA nonattainment area provides for this free market trading approach.

EPA proposed approval into the Houston SIP of the TNRCC MECT program on July 23, 2001 (66 FR 38231), to provide flexibility in achieving the 595 tpd NO_X reductions from stationary sources. EPA is finalizing that approval today in a separate action. For more information on the emissions banking and trading program, see our action published elsewhere in the **Federal Register**.

Accelerated Retirement of Heavy Duty Vehicles

The Texas Emission Reduction Program (TERP), described above in the response to issue 3.5, offers incentives to replace engines in older vehicles with the cleanest engines available. This program did not exist when the SIP was developed and adopted but was recently adopted by the Legislature. Emission reductions from the TERP replace the reductions that would have resulted from two rules for which the Legislature required repeal, i.e., the accelerated purchase of low NO_X engines and the construction shift. Any emission reductions from this voluntary program which exceed the reductions that would have resulted from the repealed rules will go toward filling the emissions shortfall in the attainment demonstration we are approving today.

(*See* a description of the TERP and how it compares to the Carl Moyer program under the discussion in our response to issue 3.5 for accelerated purchase of Tier II/Tier III (low-NO_X) engines.)

Natural Gas Buses

Natural gas buses, as one type of Low Emission Vehicle, are already mandated by the State for purchase by mass transit authorities in 30 TAC 114.150. The low emission vehicle fleet rules meet Federal Clean Fuel Fleet requirements for this program. EPA approved this program into the HGA SIP on February 7, 2001, (66 FR 9203) so the NO_X emission reductions achieved through this measure are already accounted for in the baseline emissions inventory for this attainment demonstration and SIP revision.

Phoenix Voluntary Ozone Plan

Houston has adopted most of the measures included in the Phoenix Voluntary Ozone Plan, as described below, but such measures are limited in terms of NO_X benefits and would not fill the 56 tpd NO_X emissions shortfall in the attainment demonstration. Some of these measures are already in the attainment demonstration being approved today, and some will be adopted for inclusion in future attainment plans to help fill the emissions shortfall.

Tax incentives similar to those in the Phoenix Voluntary Ozone Plan are included in future attainment plans as part of the State's enforceable commitments to adopt measures to fill the emissions shortfall in the attainment demonstration being approved today. Fireplaces are not used regularly in HGA, and definitely not during the ozone season. So, this measure is more likely to address carbon monoxide or particulate matter pollution that may be issues in Phoenix but not in HGA.

Traffic light synchronization is also being implemented in HGA, partially under Transportation Control Measures(TCMs) and partially under the VMEP. The Computerized Traffic Management System, the Arterial Traffic Management System and Intersection Improvements are TCMs that include some signalization projects.

Trip reduction programs are part of the HGA Voluntary Mobile Emission Reduction Program (VMEP) in the Commute Solutions program. Texas has addressed the use of alternate energy sources at construction sites by providing incentives through the TERP (described above). The Regional Computerized Traffic Signal System is part of the VMEP that includes signalization timing projects for roadways designated as local streets, either intrazonal or central connectors. The VMEP credits are limited to 3 percent of the total emission reductions needed for the SIP. Therefore additional credits for traffic signalization cannot be taken under the VMEP.

Signalization under the VMEP is estimated to generate an estimated 0.0–0.5 tpd NO_X reductions in the 8-county area. The three TCM projects are projected to generate 0.36 tpd. This includes other activities within these categories besides the signalization projects. Details of the VMEP are found in Appendix K, while details of the TCMs are found in Appendix I of the HGA SIP.

Energy Efficiency (Building Codes)

This is included as a measure to fulfill an enforceable commitment in future attainment plans which will address the emissions shortfall in the attainment demonstration being approved today. (See pages 7–44 through 7–52 of the HGA attainment demonstration SIP.) Senate Bill 5, enacted in June 2001, includes incentives for purchase of energy efficient appliances and sets building energy performance standards. Rules on the energy efficiency program will be submitted as part of the future attainment plans.

Federal Clean Fuel Fleet Program

ATA points to the following EPA statement in its approval of the Texas Clean Fuel Fleet substitute plan as support for its claim that the Texas substitute program would not produce the same NO_X reductions when compared to the Federal Clean Fuel Fleet program:

> It is similar to the Federal CFF program, but with a number of significant differences that, but for the supplemental controls, result in an emissions reduction shortfall as compared to the Federal CFF program. (Emphasis added.)

66 FR 9203 (2/7/01), at 9203. The italicized phrase is the important qualification to the sentence which ATA ignored in making its claim. EPA's statement refers to only one component of the Texas substitute plan, a State fleet program—the Texas Clean Fleet (TCF) program. Texas has supplemented this state fleet program with additional controls, as allowed under the CAA.

The Federal CFF program requirements are contained in part C, entitled, ''Clean Fuel Vehicles,'' of Title II of the CAA, as amended in 1990. Part C was added to the CAA to establish two programs: a clean-fuel vehicle pilot program in the State of California (the California Pilot Test Program) and the Federal CFF program in certain ozone and carbon monoxide (CO) non-attainment areas. Section 182(c)(4) of the CAA, 42 U.S.C. 7511a, allows States to opt-out of the Federal CFF program by submitting, for EPA approval, a SIP revision consisting of a substitute program resulting in as much or greater long term emissions reductions in ozone producing and toxic air emissions as the Federal CFF program.

Texas submitted a SIP revision to Chapter 114 and the State's plan for implementing a substitute program to opt out of the Federal CFF program on August 27, 1998. The revision was adopted after public notice and hearing as required by sections 110(a)(2) and 110(l) of the CAA and 40 CFR 51.102(f). Texas' CFF substitute plan relies on a State fleet program—the Texas Clean Fleet (TCF) program—supplemented with additional VOC and NO_X emission controls.

The State has met the requirements of the CAA and has successfully demonstrated that its CFF substitute plan will achieve long term reductions in emissions of ozone producing and toxic air pollutants in excess of those that would have been achieved by the Federal CFF program. EPA published its direct final rule on the State's substitute program on February 7, 2001, (66 FR 9203) and no adverse comments were

received. Credit for the NO_X reductions attributable to Texas' CFF substitute plan are reflected in the Texas SIP baselines for ozone.

Early Introduction of Low-NO_X Engines

See our response to issue 3.5 regarding Accelerated Purchase of low NO_X engines.

Carl Moyer Memorial Air Quality Standards Attainment Program

See our previous responses that discuss the Texas Emission Reduction Program (TERP) in issue 3.5 regarding Accelerated Purchase of low NO_X engines and in this issue 3.6 regarding Accelerated Retirement of HD vehicles.

Texas Emissions Reduction Program (Senate Bill 5)

When the HGA SIP was developed and adopted, the 77th Texas Legislature had not yet come into session. Senate Bill (SB) 5, which created the Texas Emission Reduction Program (TERP), was introduced during that session that ran from January to June 2001. Therefore, emission reductions from the TERP could not be included in the adopted SIP submitted in December 2000. At the same time, SB5 also directed the State to repeal the rules for the construction shift and the accelerated purchase of Tier II/Tier III (low NO_X) engines. The Governor requested parallel processing of SB5 on June 15, 2001. We are parallel processing SB5 with the HGA attainment demonstration. Credits generated by the TERP are intended to replace the credits lost by repeal of the rules. It is expected that excess credits from the TERP will contribute to closing the 56 tpd NO_X emissions shortfall, but it is not expected to fill the shortfall. In addition, EPA believes the three year timeframe referenced in the comment is extremely optimistic.

See also our previous responses that discuss the Texas Emission Reduction Program (TERP) in issue 3.5 regarding Accelerated Purchase of low NO_X engines and in this issue 3.6 regarding Accelerated Retirement of HD vehicles.

Texas House Bill 2912

EPA acknowledges the comment that this Bill requires grandfathered facilities to obtain permits by 2007. It is anticipated that Texas will submit the reductions from these measures in future SIP revisions to help fill the remaining NO_X shortfall of 56 tpd. The 50 percent NO_X reduction expected from the newly permitted oil and gas pipeline facilities in eastern Texas partially offsets the increase in NO_X emission reduction levels mandated for utilities resulting from the State lowering utility emission reduction requirements from 93 percent to 90 percent. The State believed the higher levels to be unreasonable due to extraordinary costs to obtain the additional 3 percent reductions. Therefore, this legislative action does not provide additional credits to be used in place of the LED fuel program.

3.7 Failure To Show Necessity for the LED Fuel Measure in Attainment Areas

BCCA asserts that LED fuel is not needed in attainment areas of Texas outside the HGA area. These areas are already meeting national air quality standards and do not need the LED fuel for air quality reasons.

TMTA commented that Texas does not have the authority to require LED fuel in the attainment areas, because it has not shown the LED fuel is necessary in those areas, and is acting arbitrarily to require LED fuel in those areas. Attainment areas do not need to submit control measures to meet CAA standards because they already attain the standards. Further, scientific studies have not shown a nexus between NO_X emissions in the state's eastern and central attainment areas and ozone violations in the state's nonattainment areas.

Response: In both the TSD (at pp 11–12) and the proposed rule (66 FR 36542, at 36545), EPA explained the reasons Texas has shown as to why requiring LED fuel in the covered area benefits the Houston non-attainment area. There are three reasons. First, requiring LED fuel in the covered area will reduce emissions of NO_X in the non-attainment area by helping to ensure that the fuel used by intrastate and long-haul trucks that transit the non-attainment area but purchase fuel in Texas outside the nonattainment area but within the covered area meets the required fuel characteristics for lowering NO_X emissions. (See also our discussion in response to Issue 2.3 as to why this requirement for a covered area as large as 110 counties is important in maintaining the benefit of the LED program.)

Second, the LED fuel program will reduce possible transport of ozone from the surrounding covered areas to the non-attainment area. EPA described the meteorological on-shore/ off-shore phenomenon called ''flow reversal'' which, according to the Coastal Oxidant Assessment for Southeast Texas (COAST) study, exacerbates the Houston ozone problem. Ozone formed over land moves out over the Gulf in the early morning, and then blows back over the land in the early afternoon of the same day. This flow reversal influences ozone concentrations inland at least 50 kilometers, easily reaching into the attainment area immediately surrounding the HGA non-attainment area. Another study (Nielsen-Gammon) claims this phenomenon may reach as far inland as 400 kilometers.

Third, the LED fuel program will reduce the transport of NO_X from the surrounding covered areas to the nonattainment area. EPA policy recognizes that ozone precursors such as NO_X emitted in attainment areas may be transported to non-attainment areas and contribute to ozone problems therein. Specifically, EPA's 1997 guidance for implementing the 1 hour ozone NAAQS, cited in the TSD and the proposed rule, recognizes that NO_X emissions outside non-attainment areas at 200 kilometers could influence the non-attainment areas.

We disagree with TMTA's statement that scientific studies have not shown a nexus between NO_X emissions in the eastern and central attainment areas of Texas and ozone violations in the non-attainment areas. TMTA has not disputed any of EPA's statements regarding the COAST study or the Nielsen-Gammon study, nor has it provided any other data to contradict the conclusions from these studies. We reiterate the three reasons mentioned above which show that requiring LED fuel in the covered area benefits the Houston non-attainment area, thus contributing to the necessity demonstration Texas has made.

3.8 Failure To Meet CAA Requirement That the State Fuel Measure Is Reasonable and Practicable, Due to the LED Fuel Measure's Consumer Cost Volatility

NPRA stated it is not clear that the potential consumer cost volatility of Texas LED meets the CAA requirement that the state fuel regulation be both reasonable and practicable. TNRCC has estimated the production cost of LED to be four cents per gallon more than current specifications. Parties suggest that EIA data indicate the retail price of diesel in California is much more than four cents per gallon higher than the price of diesel in PADD III (eleven cents to forty-one cents per gallon).

Response: NPRA's comment misstates the applicable CAA requirement. The CAA does not require that the state fuel regulation must be reasonable and practicable, but it does require that the state fuel program be shown to be more reasonable and practicable than the existing alternatives. Texas has made a comparative analysis of many possible alternatives to the LED fuel requirement,

and as demonstrated in the TSD and in the responses to comments in this final rule, considered the costs, benefits, implementation time, public acceptance and other factors for evaluating reasonableness and practicability. EPA has reviewed these findings and made its own assessment of these controls as well as the additional alternatives identified by commenters. In particular, as discussed in issue 1.4, comparing Texas estimates for production cost to California retail prices and PADD III retail prices is misleading because retail prices do not reflect the production cost alone. Other factors in retail pricing include differences in supply and demand, dealer mark up, and proximity of supply. The State of Texas has determined that four cents per gallon (production costs) for Phase I is an acceptable difference since LED provides an environmental benefit. California recently validated similar production cost estimates for their analogous diesel fuel via a comparison of wholesale prices in California to prices in neighboring states. Based on this, we believe that State of Texas' estimate is reasonably accurate.

3.9 Failure To Show Necessity Because the Environmental Benefits of the LED Rule Are Overstated or Inaccurately Quantified

ATA and TMTA commented that it is impossible to make the section 211 necessity determination without first accurately quantifying the emissions impact of using the LED fuel. The necessity of LED, as required under section 211(c)(4)(C) of the CAA, has not been demonstrated, because (among other reasons) the environmental benefits are overstated, due to the assumed 100 percent effectiveness in the nonattainment area and the failure to account for significant use of the cheaper ''federal fuel'' as described above.

Response: EPA has made its own analysis of the NO_X reduction benefit expected from use of LED fuel, confirming the emission reduction at levels slightly different from those estimated by Texas but still significant in helping achieve ozone attainment. (*See* discussion in our response to issue 2.1.) We have also analyzed the potential overstatement of the benefit due to re-fueling outside the non-attainment area, and have concluded there is a reasonable basis to agree with the State of Texas that re-fueling outside the non-attainment area will not significantly affect the benefit of the LED rule. (*See* discussion in our response to issue 2.3.) Thus, we have demonstrated that the LED rule will provide some or all of the emission reductions needed to achieve the ozone NAAQS.

3.10 Preemption Under the Supremacy Clause of the U.S. Constitution

ATA commented that in addition to the explicit statutory preemption under CAA 211(c)(4), the Supremacy Clause of the U.S. Constitution implicitly preempts the LED rule since it stands as an obstacle to accomplishing the Congressional objective of a single national fuel standard.

Response: Aside from the explicit preemption in Section 211(c)(4)(A), a court could also consider whether a state sulfur control is implicitly preempted under the Supremacy Clause of the U.S. Constitution. Courts have determined that a state law is preempted by federal law where the state requirement actually conflicts with federal law by preventing compliance with both federal and state requirements, or by standing as an obstacle to accomplishment of Congressional objectives. A court could thus consider whether a given state fuel control is preempted, notwithstanding waiver of preemption under 211(c)(4)(C), if it places such significant cost and investment burdens on refiners that refiners cannot meet both state and federal requirements in time, or if the state control would be preempted on some other legal basis.

Commenters have not raised specific problems that could reasonably give rise to a claim of conflict preemption. The State of Texas' program appears consistent with Congress' overall goal of achieving air quality standards as expeditiously as possible as expressed in section 110(a)(2), and is consistent with Congress' allowance of State fuel controls when necessary to achieve such standards. Nor does there appear to be any conflict between the State and federal standards that would prevent compliance with both provisions. It is practically and legally possible to produce diesel fuel that meets both the federal and State sulfur standards, as noted in our response to issue 1.9. The State of Texas has provided significant lead time for refiners to come into compliance and the State and federal standards are similar for on-highway diesel fuel. While refiners have raised concerns about the impact of the LED rule on the Federal ULSD rule, as we discussed in response to Issue 1.9, they did not say it would be impossible to comply with both rules, or that compliance with the LED rule prevents compliance with the Federal ULSD rule. Furthermore, ATA does not provide any support for the claim that compliance with the two standards is not possible. For these reasons, EPA does not believe there is a clear Constitutional problem that should lead EPA to deny approval of the State LED program.

Issue 4 Potential ''Backsliding'' With Proposed SIP Changes

ED commented that EPA must reject any effort to relax effective control measures on the books before the identified shortfall in emissions reductions is eliminated. In particular, the proposed change Texas will make to the LED rule is backsliding from the 12/00 SIP since it limits applicability for on-road use of LED fuel to East and Central Texas instead of statewide, and delays implementation of the LED rule until 2005. ED notes that no net loss is calculated.

Response: The proposed changes to the Texas regulations do not constitute ''backsliding'' as that term has come to be used in the context of the CAA. The Clean Water Act term ''backsliding'' (33 U.S.C. 1342(o)) is used in regard to the CAA to refer to weakening federally approved regulations in a manner which would interfere with the attainment or maintenance of one of the National Ambient Air Quality Standards (NAAQS). See, sections 101(b), 110(a)(2)(D), and 161 of the CAA. Section 110(1) prohibits EPA from approving a SIP revision if it would interfere with attainment, reasonable further progress, or any other applicable requirement of the Clean Air Act. The statute leaves with the State, however, the ability to formulate and revise the SIP in whole or in part so long as the plan provides for timely attainment of the NAAQS and meets other applicable CAA requirements. *See*, CAA section 110(k)(3) and *Train* v. *NRDC*, 421 U.S. 60, 79 (1975).

The revisions were proposed and submitted to EPA (along with a request for parallel processing) prior to approval so they do not represent changes to an approved SIP from which a state could be seen as ''backsliding''. These are changes to the State's choice as to how the ozone NAAQS will be achieved in the HG area. It is not EPA's role to disapprove the State's choice of control strategies if that strategy will result in attainment of the one-hour standard and meets all other applicable statutory requirements. *See Union Electric* v. *EPA*, 427 U.S. 246 (1976); *Train* v. *NRDC*, 421 U.S. 60 (1975).

Even if these changes represented changes in an approved SIP, we do not agree that it would be appropriate to reject this rule because it is unlikely the changes made to the LED rule since its original adoption by the State of Texas

in December, 2000, would significantly impair the emission reductions attributable to this measure. The change in implementation date from 2002 to 2005 does not affect the benefit of the LED rule, since the yearly emission reductions are not cumulative. It is the emission reductions in 2007, the attainment date, which is critical. The change in geographic scope of the LED rule (from statewide to 110 counties for highway diesel fuel) should not significantly affect the benefit of the LED rule since the 110 county covered area includes 95 percent of all vehicle miles traveled (VMT) in Texas and the most populated cities in the state.

A principal purpose of extending the coverage of the LED rule to the 102 counties outside the 8 county Houston non-attainment area is to ensure that intrastate and long-haul trucks traveling through the Houston area but re-fueling outside the Houston area are re-fueling with LED fuel. Because most of the VMT and most of the diesel fuel purchased for on-road travel in Texas is within the 110 county area (as noted in our response to issue 1.6), this change should not significantly affect the resulting benefits of the LED rule. Because this rule would not interfere with attainment of the NAAQS, we believe approval is proper. *See*, *United States Steel* v. *EPA*, 633 F.2d 671, 674 (3d cir. 1980). *See* response to issue 2.3 for discussion of the impact of re-fueling outside the covered area on the benefit of the LED rule.

Issue 5 Potential Changes at Mid-Course Correction Jeopardize Need for Certainty

BCCA needs to know that the LED rule, as finalized in 12/00, will not change at the mid-course correction in 2004, because its members need certainty in order to make plans for investment and construction to meet the fuel requirements. These plans carry long lead times.

Response: We agree this would be a problem but we assume Texas has made its final changes to the LED rule after significant negotiations between Texas and relevant stakeholders earlier this year led to the passage of legislation (HB 2912) delaying the implementation date and limiting the geographic scope of the LED rule. This legislation was signed by the Governor on May 29, 2001, and led to the most recent revisions to the LED rule, implementing the change in date and geographic scope, which EPA is approving today.

If Texas wants to make changes to the LED rule at the mid-course correction in 2004, Texas would have to go through its state rulemaking process, with public notice and comment, so that stakeholders such as the commenter would have an opportunity to explain the implications of such changes. Additionally, EPA would have to go through a rulemaking process with public notice and comment if Texas wanted to request that such changes be approved into the SIP.

In addition, EPA is approving the enforceable commitment to conduct this mid-course correction in the attainment demonstration approval being published elsewhere in today's **Federal Register**. Further discussion regarding the appropriateness of the mid-course correction can be found in the Response to Comments for that action.

Issue 6 Need for Energy Analysis Under E.O. Issued 5/22/01

ATA commented that EPA should perform an energy analysis in accordance with EO issued 5/22/01 concerning regulations that significantly affect energy supply, distribution, or use.

Response: On May 18, 2001, President George W. Bush signed Executive Order 13211, entitled ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (*See*, 66 FR 28355, May 22, 2001). This Executive Order (EO) requires Federal agencies to prepare, and submit to the Office of Management and Budget (OMB), a Statement of Energy Effects for matters identified as significant energy actions. ''Significant energy action'' is defined by the EO as:

> any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation * * * (1)(i) that is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse impact on the supply, distribution or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant regulatory action.

SIP approvals are not ''significant regulatory actions'' subject to OMB review and are consequently excluded from the requirements of EO 13211.

Issue 7 Need for Regulatory Impact Analysis Under Texas Law

BCCA argues that the LED rule is not legally defensible because it is a ''major environmental rule'' requiring a RIA under Texas law because it (1) Exceeds standards set by Federal law, and (2) exceeds an express requirement of state law.

TMTA commented that the cost of purchasing LED and its impact on the Texas trucking industry has been understated. A Regulatory Impact Analysis to adequately assess the economic impacts of the rule has not been prepared, as required under Texas law. TMTA makes three main arguments: (1) The cost of purchasing cleaner diesel fuel has not been considered; (2) higher fuel costs cannot be passed on due to outside competition; and (3) a Regulatory Impact Analysis must be performed under Texas law when proposing certain ''major environmental rules'', and Texas has mistakenly failed to do so.

Response: As stated previously, EPA's role in reviewing SIP submittals is to approve state choices, provided that they meet the criteria of the Clean Air Act. Federal inquiry into the economic reasonableness of state action is not allowed under the Clean Air Act (*see*, *Union Electric Co.*, v. *EPA*, 427 U.S. 246, 255–66 (1976); 42 U.S.C. 7410(a)(2)) other than for purposes of evaluating the reasonableness and availability of alternatives for purposes of a waiver of Federal preemption.

The State has submitted information indicating that the administrative requirements of Texas law have been met. We defer to the State analysis until such time as a State Court has determined otherwise.

Issue 8 Need for Regulatory Flexibility Act Analysis

ATA commented that EPA has mistakenly concluded that the Regulatory Flexibility Act does not apply to this rulemaking.

Response: This action merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Because this rule approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law and hence does not have a significant economic impact on a substantial number of small entities, an analysis under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) is not required.

Issue 9 EPA's Action Is Arbitrary and Capricious

ATA states that approval of the LED fuel rule is arbitrary and capricious.

Response: ATA provides no independent support for its claim that EPA acted arbitrarily or capriciously. Thus, to the extent ATA relies on its previous comments to support this final conclusion, EPA has responded to this claim in responding to the specific issues raised by ATA and others.

EPA actions may be overturned if such action is found to be arbitrary,

capricious, an abuse of discretion or otherwise not in accordance with law; contrary to Constitutional right, power, privilege or immunity; in excess of statutory jurisdiction, authority, or limitations or without observance of procudure required by law. CAA Section 307(d)(9). *See also, Virginia* v. *Browner*, 80 F.3d 869, 876 (4th Cir. 1996) (applying the APA standard to the EPA's disapproval of a state implementation plan); *see also Sierra Club* v. *EPA*, 252 F.3d 943, 946–47 (8th Cir. 2001) (applying the APA standard to approval of a state implementation plan); *Ober* v. *Whitman*, 243 F.3d 1190, 1193 (9th Cir. 2001) (applying the APA standard to the EPA's exemption in a Federal implementation plan of certain *de minimis* sources of pollution).

The commenter has suggested that this action is arbitrary and capricious. That is not the case. When a Court reviews an agency action to see if it was arbitrary and capricious, the Court looks to see if the agency ''relied on factors that Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.'' *Hughes River Watershed Conservancy* v. *Johnson,* 165 F.3d 283, 288 (4th Cir. 1999)(citing *Motor Vehicle Mfrs. Ass'n* v. *State Farm Mut.,* 463 U.S. 29, 43 (1983)). The discussion in this Response to Comments Preamble and the Technical Support Document supporting the proposal for this action provide a reasonable basis for the decision reached, demonstrating that this approval is not arbitrary and capricious. *See, Natural Res. Def. Council, Inc.* v. *EPA,* 16 F.3d 1395, 1401 (4th Cir. 1993).

Section 211(c)(4)(C) provides for SIP approval of otherwise preempted state fuel controls if EPA finds the control is ''necessary'' to achieve a NAAQS because no other reasonable or practicable alternatives exist that would bring about timely attainment. We have demonstrated that the LED fuel measure is necessary to achieve attainment of the 1-hour ozone standard. First we quantified the emissions reductions needed to achieve the NAAQS and showed that even with implementation of the extraordinary controls being adopted by the State, additional reductions are needed. In order to address the difficult nonattainment problem in the Houston area, the State has adopted a long list of control measures, many of which have never been implemented by other states. Notwithstanding these aggressive controls, the State has identified a shortfall in the required emission reductions and has committed to pursue other necessary controls.

After demonstrating the air quality need, we showed that, at this time, there are no reasonable and practicable alternatives sufficient to achieve the NAAQS. In coming to adopt the LED control, the State reviewed an unprecedented list of alternatives, reviewing the costs, benefits, implementation time, public acceptance and other factors for evaluating reasonableness and practicability. EPA has reviewed these findings and has made its own assessment of these controls as well as the additional alternatives identified by commenters.

Finally, we demonstrated that the LED program will provide some of the needed NO_X reductions. While commenters dispute the quantity of reductions the LED program will provide, no commenter disputes that LED will provide some NO_X benefits. EPA has nonetheless addressed the specific arguments on the costs and benefits of the program and believes that given the costs and benefits of the program, the LED program remains a more desirable control option than the alternatives rejected by the State.

EPA, therefore, concludes the record provides a reasonable basis for approving the LED SIP revision in accordance with sections 110, 211(c)(4), and 307(d)(9) of the Clean Air Act.

VIII. EPA's Rulemaking Action

We are granting final approval pursuant to sections 110 and 211(c)(4)(C) because we find that the State has (1) identified the reduction in NO_X needed to achieve attainment of the ozone NAAQS; (2) identified all other reasonable and practicable control measures; (3) shown that even with the implementation of all reasonable and practicable control measures, the State would need additional emissions reductions for the HGA nonattainment area to meet the ozone NAAQS (124 ppb) on a timely basis; and (4) demonstrated that the LED fuel requirement would provide some of those additional reductions.

IX. Administrative Requirements

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a ''significant regulatory action'' and therefore is not subject to review by the Office of Management and Budget. For this reason, this action is also not subject to Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001). This action merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this 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 approves 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 (Pub. L. 104–4).

This 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 approves 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 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, EPA's role is to approve state choices, 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 (15 U.S.C. 272 note) do not apply. This 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.*).

The Congressional Review Act, 5 U.S.C. section 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. section 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by January 14, 2002. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: October 15, 2001.

Gregg A. Cooke,

Regional Administrator, Region 6.

Part 52, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52—[AMENDED]

1. The authority citation for part 52 continues to read as follows:

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

Subpart SS—Texas

2. In § 52.2270 the table in paragraph (c) is amended under Chapter 114 (Reg 4):

a. Under Subchapter A, by adding a new entry for Section 114.6 in numerical order;

b. Revising the heading ''Subchapter H—Low Emission Fuels; Division I: Gasoline Volatility'' to read ''Subchapter H—Low Emission Fuels';

c. Under the heading ''Subchapter H—Low Emission Fuels'' and before Section 114.301 by adding the heading ''Division 1: Gasoline Volatility';

d. Under Subchapter H immediately after Section 114.309 by adding a new heading ''Division 2: Low Emission Diesel'' followed by new individual entries for Sections 114.312, 114.313, 114.314, 114.315, 114.316, 114.317, 114.318, and 114.319.

The revisions and additions read as follows:

§ 52.2270 Identification of plan.

* * * * *

(c) * * *

EPA APPROVED REGULATIONS IN THE TEXAS SIP

State citation	Title/Subject	State approval Submittal date	EPA approval date	Explanation
*	* * * * *	*		*
Chapter 114 (Reg 4)—Control of Air Pollution from Motor Vehicles				
Subchapter A—Definitions				
*	* * * * *	*		*
Section 114.6	Low Emission Fuel Definitions	12/06/2000	[Insert 11/14/01 Federal Register Cite.]	
*	* * * * *	*		*
Subchapter H—Low Emission Fuels				
Division 1: Gasoline Volatility				
*	* * * * *	*		*
Division 2: Low Emission Diesel				
Section 114.312	Low Emission Diesel Standards	12/06/2000	[Insert 11/14/01 Federal Register Cite.]	
Section 114.313	Designated Alternate Limits	12/06/2001	Insert 11/14/01 Federal Register Cite.]	

EPA APPROVED REGULATIONS IN THE TEXAS SIP—Continued

State citation	Title/Subject	State approval Submittal date	EPA approval date	Explanation
Section 114.314	Registration of Diesel Producers and Importers	09/26/2001	[Insert 11/14/01 Federal Register Cite.]	
Section 114.315	Approved Test Methods	12/06/2000	[Insert 11/14/01 Federal Register Cite.]	
Section 114.316	Monitoring, Recordkeeping, Reporting and Requirements	12/06/2000	[Insert 11/14/01 Federal Register Cite.]	
Section 114.317	Exemptions to Low Emission Diesel Requirements	12/06/2000	[Insert 11/14/01 Federal Register Cite.]	
Section 114.318	Alternative Emission Reduction Plan	09/26/2001	[Insert 11/14/01 Federal Register Cite.]	
Section 114.319	Affected Counties and Compliance Dates	09/26/2001	[Insert 11/14/01 Federal Register Cite.]	
*	* * * * *	*		*

[FR Doc. 01–27581 Filed 11–13–01; 8:45 am]
BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[TX–134–4–7508; FRL–7093–1]

Approval and Promulgation of Air Quality State Implementation Plans (SIP); Texas: Administrative Orders Issued to Airport Operators and Airlines Regarding Control of Pollution From Ground Support Equipment (GSE) for the Houston/Galveston (HGA) Ozone Nonattainment Area and a Non-Road Large Spark-Ignition Engine Rule for the HGA and Dallas/Fort Worth (DFW) Ozone Nonattainment Areas

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The EPA is approving a State Implementation Plan (SIP) revision submitted by the State of Texas. This rule making covers two separate actions. The EPA is approving: Administrative Orders and Memoranda of Agreement (MOA) requiring owners and operators at major airports in the HGA area to implement reductions in oxides of nitrogen (NO_X) emissions for sources under their control, primarily GSE; and a rule requiring that non-road large spark-ignition engines of 25 horsepower (hp) or larger in all counties of the State of Texas conform to requirements identical to Title 13 of the California Code of Regulations, Chapter 9. This rule includes the HGA and DFW ozone nonattainment areas.

This new rule and the orders will contribute to attainment of the ozone standard in the HGA and DFW ozone nonattainment areas. The EPA is approving these revisions to the Texas SIP to regulate emissions of NO_X in accordance with the requirements of the Federal Clean Air Act (the Act).

DATES: This final rule is effective on December 14, 2001.

ADDRESSES: Copies of the documents relevant to this action are available for public inspection during normal business hours at the following locations. Persons interested in examining these documents should make an appointment with the appropriate office at least 24 hours before the visiting day. Environmental Protection Agency, Region 6, Air Planning Section (6PD–L), 1445 Ross Avenue, Suite 700, Dallas, Texas 75202–2733. Texas Natural Resource Conservation Commission, 12100 Park 35 Circle, Austin, Texas 78753.

FOR FURTHER INFORMATION CONTACT: Herbert R. Sherrow, Jr., Air Planning Section (6PD–L), EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202–2733, telephone (214) 665–7237.

SUPPLEMENTARY INFORMATION: Throughout this document ''we,'' ''us,'' and ''our'' means EPA.

What Action Is EPA Taking Today?

We are granting final approval of Texas' administrative orders requiring owners and operators at major airports in the HGA area to implement reductions in NO_X emissions for sources under their control and a rule requiring that non-road large spark-ignition engines of 25 hp or larger in all counties of the State of Texas conform to requirements identical to Title 13 of the California Code of Regulations, Chapter 9. This rule includes the HGA and DFW ozone nonattainment areas. A proposed