

The Texas Natural Resource Conservation Commission (commission or agency) adopts new §114.700, Definitions; §114.701, Applicability; §114.702, Adoption and Incorporation by Reference of California Rules Regarding Exhaust Emission Standards; §114.706, Recordkeeping Requirements; §114.707, Exemptions and Technology Review; and §114.709, Affected Counties and Compliance Schedules.

The commission adopts these new sections in Chapter 114, Control of Air Pollution from Motor Vehicles; new Subchapter L, On-Road Engines; new Division 1, Heavy-Duty Diesel Engines; and corresponding revisions to the state implementation plan (SIP) in order to control ground-level ozone in the Houston/Galveston (HGA) ozone nonattainment area as well as all other counties of the state.

These adopted rules incorporate by reference the California “not-to-exceed” (NTE) heavy-duty diesel engine (HDDE) emission standards and corresponding test procedures to apply NTE standards to all on-road, heavy-duty diesel vehicles (HDDV) in Texas. Sections 114.700 - 114.702, 114.706, 114.707, and 114.709 are adopted *without changes* to the proposed text as published in the October 26, 2001 issue of the *Texas Register* (26 TexReg 8480) and will not be republished.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES

HGA SIP Background

The HGA ozone nonattainment area is classified as Severe-17 under the 1990 Amendments to the Federal Clean Air Act (FCAA) as codified in 42 United States Code (USC), §§7401 et seq., and therefore is required to attain the one-hour ozone standard of 0.12 parts per million (ppm) by November 15, 2007. In addition, 42 USC, §7502(a)(2), requires attainment as expeditiously as practicable, and §7511a(d), requires states to submit ozone attainment demonstration SIPs for severe ozone nonattainment areas such as HGA. The HGA area, defined by Brazoria, Chambers, Fort Bend,

Galveston, Harris, Liberty, Montgomery, and Waller Counties, has been working to develop a demonstration of attainment in accordance with 42 USC, §7410. On January 4, 1995, the state submitted the first of its Post-1996 SIP revisions for HGA.

The January 1995 SIP consisted of urban airshed model (UAM) modeling for 1988 and 1990 base case episodes, adopted rules to achieve a 9% rate-of-progress (ROP) reduction in volatile organic compounds (VOC), and a commitment schedule for the remaining ROP and attainment demonstration elements. At the same time, but in a separate action, the State of Texas filed for the temporary nitrogen oxides (NO_x) waiver allowed by 42 USC, §7511a(f). The January 1995 SIP and the NO_x waiver were based on early base-case episodes which marginally exhibited model performance in accordance with the United States Environmental Protection Agency (EPA) modeling performance standards, but which had a limited data set as inputs to the model. In 1993 and 1994, the commission was engaged in an intensive data-gathering exercise known as the Coastal Oxidant Assessment for Southeast Texas (COAST) study. The commission believed that the enhanced emissions inventory, expanded ambient air quality and meteorological monitoring, and other elements would provide a more robust data set for modeling and other analysis, which would lead to modeling results that the commission could use to better understand the nature of the ozone air quality problem in the HGA area.

Around the same time as the 1995 submittal, the EPA policy regarding SIP elements and timelines went through changes. Two national initiatives in particular resulted in changing deadlines and requirements. The first of these initiatives was the Ozone Transport Assessment Group (OTAG). This group grew out of a March 2, 1995 memo from Mary Nichols, former EPA Assistant Administrator for Air and

Radiation, that allowed states to postpone completion of their attainment demonstrations until an assessment of the role of transported ozone and precursors had been completed for the eastern half of the nation, including the eastern portion of Texas. Texas participated in the OTAG program, and OTAG concluded that Texas does not significantly contribute to ozone exceedances in the Northeastern United States. The other major national initiative that has had an impact on the SIP planning process is the revision to the national ambient air quality standard (NAAQS) for ozone. The EPA promulgated a final rule on July 18, 1997 changing the ozone standard to an eight-hour standard of 0.08 ppm. In November 1996, concurrent with the proposal of the standards, the EPA proposed an interim implementation plan (IIP) that it believed would help areas like HGA transition from the old to the new standard. In an attempt to avoid a significant delay in planning activities, Texas began to follow this guidance, and readjusted its modeling and SIP development timelines accordingly. When the new standard was published, the EPA decided not to publish the IIP, and instead stated that, for areas currently exceeding the one-hour ozone standard, that standard would continue to apply until it is attained. The FCAA requires that HGA attain the standard by November 15, 2007.

The EPA issued revised draft guidance for areas such as HGA that do not attain the one-hour ozone standard. The commission adopted on May 6, 1998 and submitted to the EPA on May 19, 1998 a revision to the HGA SIP which contained the following elements in response to the EPA guidance: UAM modeling based on emissions projected from a 1993 baseline out to the 2007 attainment date; an estimate of the level of VOC and NO_x reductions necessary to achieve the one-hour ozone standard by 2007; a list of control strategies that the state could implement to attain the one-hour ozone standard; a schedule for completing the other required elements of the attainment demonstration; a revision to the

Post-1996 9% ROP SIP that remedied a deficiency that the EPA believed made the previous version of that SIP unapprovable; and evidence that all measures and regulations required by the Subpart 2 of Title I of the FCAA to control ozone and its precursors have been adopted and implemented, or are on an expeditious schedule to be adopted and implemented.

In November 1998, the SIP revision submitted to the EPA in May 1998 became complete by operation of law. However, the EPA stated that it could not approve the SIP until specific control strategies were modeled in the attainment demonstration. The EPA specified a submittal date of November 15, 1999 for this modeling. In a letter to the EPA dated January 5, 1999, the state committed to model two strategies showing attainment.

As the HGA modeling protocol evolved, the state eventually selected and modeled seven basic modeling scenarios. As part of this process, a group of HGA stakeholders worked closely with commission staff to identify local control strategies for the modeling. Some of the scenarios for which the stakeholders requested evaluation included options such as California-type fuel and vehicle programs as well as an acceleration simulation mode equivalent motor vehicle inspection and maintenance program. Other scenarios incorporated the estimated reductions in emissions that were expected to be achieved throughout the modeling domain as a result of the implementation of several voluntary and mandatory statewide programs adopted or planned independently of the SIP. It should be made clear that the commission did not propose that any of these strategies be included in the ultimate control strategy submitted to the EPA in 2000. The need for and effectiveness of any controls which may be implemented outside the HGA eight-county area will be evaluated on a county-by-county basis.

The SIP revision was adopted by the commission on October 27, 1999, submitted to the EPA by November 15, 1999, and contained the following elements: photochemical modeling of potential specific control strategies for attainment of the one-hour ozone standard in the HGA area by the attainment date of November 15, 2007; an analysis of seven specific modeling scenarios reflecting various combinations of federal, state, and local controls in HGA (additional scenarios H1 and H2 build upon Scenario VI f); identification of the level of reductions of VOC and NO_x necessary to attain the one-hour ozone standard by 2007; a 2007 mobile source budget for transportation conformity; identification of specific source categories which, if controlled, could result in sufficient VOC and/or NO_x reductions to attain the standard; a schedule committing to submit by April 2000 an enforceable commitment to conduct a mid-course review; and a schedule committing to submit modeling and adopted rules in support of the attainment demonstration by December 2000.

The April 19, 2000 SIP revision for HGA contained the following enforceable commitments by the state: to quantify the shortfall of NO_x reductions needed for attainment; to list and quantify potential control measures to meet the shortfall of NO_x reductions needed for attainment; to adopt the majority of the necessary rules for the HGA attainment demonstration by December 31, 2000, and to adopt the rest of the shortfall rules as expeditiously as practical, but no later than July 31, 2001; to submit a Post-1999 ROP plan by December 31, 2000; to perform a mid-course review by May 1, 2004; and to perform modeling of mobile source emissions using the EPA mobile source emissions model (MOBILE6), to revise the on-road mobile source budget as needed, and to submit the revised budget within 24 months of the model's release. In addition, if a conformity analysis is to be performed between 12 months and 24 months after the MOBILE6 release, the state will revise the motor vehicle

emissions budget (MVEB) so that the conformity analysis and the SIP MVEB are calculated on the same basis.

The emission reduction requirements included as part of the December 2000 SIP revision represented substantial, intensive efforts on the part of stakeholder coalitions in the HGA area. These coalitions, involving local governmental entities, elected officials, environmental groups, industry, consultants, and the public, as well as the commission and the EPA, have worked diligently to identify and quantify potential control strategy measures for the HGA attainment demonstration. Local officials from the HGA area formally submitted a resolution to the commission, requesting the inclusion of many specific emission reduction strategies.

A SIP revision for HGA was adopted by the commission on December 6, 2000 and was submitted to the EPA by December 31, 2000. The December 2000 SIP contained rules, enforceable commitments, and photochemical modeling analyses in support of the HGA ozone attainment demonstration. In addition, this SIP contained Post-1999 ROP plans for the milestone years 2002 and 2005, and for the attainment year 2007. The SIP also contained enforceable commitments to implement further measures, if needed, in support of the HGA attainment demonstration, as well as a commitment to perform and submit a mid-course review.

NTE Background

The EPA has been regulating HDDEs since 1984. In 1998, the federal government and seven HDDE manufacturers entered into consent decrees after enforcement actions were brought against HDDE

manufacturers that a majority of the diesel engine manufacturers had programmed their engines to defeat federal test procedures (FTP) which were established to measure compliance with the EPA-promulgated diesel emission standards in effect at the time. A so-called “defeat device” was employed because its use would provide some increase in fuel economy. However, its use would also cause the engine to produce higher NO_x emissions while the engine was running in the open-road or cruise mode. In the consent decrees, the manufacturers are required, among other things, to produce HDDEs that meet a 2.5 gram per brake horsepower-hour standard for the non-methane hydrocarbons plus NO_x emissions no later than October 1, 2002. Under the California rules, manufacturers are required to perform supplemental test procedures, in addition to the existing FTP. The two components of the supplemental tests are known as the NTE test and the Euro III European Stationary Cycle test.

The consent decrees require the manufacturers to comply with these procedures for a period of two years (2003 and 2004); however, EPA’s NTE rules which would include the test requirements have been delayed until model year 2007. Thus, for two model years (2005 and 2006), there would be a gap between the expiration for the test requirements following model year 2004 and the commencement of test requirements for model year 2007 under the EPA rules. California adopted rules to fill this gap by requiring HDDE manufacturers to comply with supplemental procedures including the NTE test. The commission recognizes the benefit of adopting the California rules because they are likely to result in major NO_x emissions reductions.

The commission is concerned that in the absence of standards during the two years, there is a chance of serious “backsliding,” and that diesel exhaust emissions could increase significantly. The commission

finds the possibility of excessive NO_x emissions to be unacceptable, given the gravity the air quality situation in nonattainment and near nonattainment areas throughout the state, and thus adopts these rules as one strategy in support of the HGA attainment demonstration.

The California Air Resources Board (CARB) determined the exhaust emission standards for the engines used for heavy-duty vehicles to be technologically feasible and a cost effective strategy at \$.63 per pound (\$1,260 per ton) of NO_x for medium, heavy-duty vehicles (14,001 to 33,000 pounds gross vehicle weight rating (GVWR)); and \$.09 per pound (\$180 per ton) of NO_x removed in the case on heavy, heavy-duty vehicles (33,001 pounds and larger GVWR). The latter class constitutes a majority of the fleet affected by the adopted NTE rules. Based on current forecasts by the Texas Department of Transportation, Texas vehicle miles traveled (VMT) in 2007 by medium, heavy-duty and heavy, heavy-duty diesel-powered, on-road vehicles, collectively known as HDDV, will be 38,326,159 miles. Of this total, 8,111,342 miles, or 21.17%, will be traveled by the HDDV class in the HGA area.

Therefore, adoption and implementation of California standards for new on-road HDDV throughout the state should reduce the amount of NO_x emissions from these sources and, therefore, help control ground-level ozone in nonattainment areas. For the HGA ozone nonattainment area, emission reductions by 2007 will be approximately 6.0 tpd based on research conducted for the commission by the Eastern Research Group, Inc. (ERG).

These rules are adopted in order to control ground-level ozone in the state by restricting the sale of new on-road HDDV to only those certified under Title 13, California Code of Regulations (13 CCR), §1956.8, pertaining to Exhaust Emissions Standards and Test Procedures -- 1985 and Subsequent Model

Heavy-Duty Engines and Vehicles, as revised by the CARB on December 8, 2000 and effective July 25, 2001. Section 7507 of 42 USC allows states to adopt the California rules, but under 42 USC, §7543(e)(2)(B), the rules must be identical to the California in terms of stringency. The rules are adopted to be effective throughout the State of Texas, and are necessary in order to attain and maintain the ozone standard in nonattainment areas, and to establish uniform emission standards for the state. A single set of engine standards will help to prevent incompatibility and expense which may arise from the distribution of equipment with different emission standards.

The commission solicited, but did not receive, comment on additional flexibilities relating to implementation which have not been addressed in this rulemaking.

SECTION BY SECTION DISCUSSION

The adopted §114.700 will contain definitions for “heavy-duty diesel engine (HDDE)”; “heavy-duty, on-road vehicle”; “ultra-small volume manufacturer”; and “urban bus.” These definitions are used, but are not specifically defined, in the California NTE rules. Because the terms are not specifically defined in the California NTE rules, they are defined in §114.700 using the related definitions in California rules. The definitions for “heavy-duty, on-road vehicle” and “heavy-duty diesel engine” are found in 13 CCR, §1900 (November 21, 1996), pertaining to Definitions. The definition for “urban bus” is found in 13 CCR, §1956.2 (June 4, 2001), pertaining to Fleet Rule for Transit Agencies. The definition for “ultra-small volume manufacturer” is found in 13 CCR, §1976 (March 21, 1995), pertaining to Standards and Test Procedures for Motor Vehicle Fuel Evaporative Emissions.

The adopted §114.701 will state that these rules apply to all HDDE produced for sale or other use in the State of Texas beginning in model year 2005 and subsequent model years. Therefore, these rules will cover the NTE gap between the EPA consent agreements and the EPA rules which are expected to be implemented for model year 2007.

The adopted §114.702 will incorporate by reference the California NTE rules contained in 13 CCR, §1956.8, as revised by the CARB on December 8, 2000 and effective October 1, 2002. Under 42 USC, §7543(a), only the EPA and California can set motor vehicle standards. In 1977, Congress amended 42 USC by adding §7507 to allow other states to promulgate motor vehicle standards, provided they are identical to those issued by California. Therefore, the California standards are adopted by reference to ensure the Texas standards are identical to the California standards.

The adopted §114.706 will require that any person who sells or offers for sale diesel engines to which these rules apply, must maintain copies of the CARB certification documents for those engines for a period of two years, as well as provide those documents to the agency upon request. This adopted section will provide a tool for the agency to determine the degree of compliance with these rules and to take enforcement action as necessary.

The adopted §114.707 will incorporate the same exemptions from the rules as allowed by the California NTE rules.

The adopted §114.709 will specify that the control requirements apply to all counties within the state, and will also specify the compliance schedule for HDDE manufacturers. A compliance date of January 1, 2005 was selected because beginning with the model year 2005, there would be a gap between the expiration for the test requirements following model year 2004 and the commencement of test requirements for model year 2007 under the EPA rules.

FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the rulemaking action in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rulemaking action does not meet the definition of a “major environmental rule” as defined in that statute. A “major environmental rule” means a rule, the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The new sections to Chapter 114 are one element of the HGA attainment SIP. While the new adopted rules are intended to protect the environment, based on the analysis provided in the preamble, including the discussion in the PUBLIC BENEFITS AND COSTS section of the proposal preamble, the commission does not believe the rules will adversely affect, in a material way, the sale or use of new on-road HDDV. The commission does not believe these entities comprise a sector of the economy, or that these adopted rules will adversely affect in a material way the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state.

Provisions of 42 USC, §7410 require states to adopt a SIP which provides for “implementation, maintenance, and enforcement” of the primary NAAQS in each air quality control region of the state. While §7410 does not require specific programs, methods, or reductions in order to meet the standard, a SIP must include “enforceable emission limitations and other control measures, means or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance as may be necessary or appropriate to meet the applicable requirements of this chapter,” (meaning 42 USC, Chapter 85, Air Pollution Prevention and Control). It is true that 42 USC does require some specific measures for SIP purposes, such as the inspection and maintenance program, but those programs are the exception, not the rule, in the SIP structure of 42 USC. The provisions of 42 USC recognize that states are in the best position to determine what programs and controls are necessary or appropriate in order to meet the NAAQS. This flexibility allows states, affected industry, and the public to collaborate on the best methods for attaining the NAAQS for the specific regions in the state. Even though 42 USC allows states to develop their own programs, this flexibility does not relieve a state from developing a program that meets the requirements of §7410. Thus, while specific measures are not generally required, the emission reductions are required. States are not free to ignore the requirements of §7410 and must develop programs to assure that the nonattainment areas of the state will be brought into attainment on schedule.

The requirement to provide a fiscal analysis of proposed regulations in the Texas Government Code was amended by Senate Bill (SB) 633 during the 75th Legislative Session, 1999. The intent of SB 633 was to require agencies to conduct a regulatory impact analysis (RIA) of extraordinary rules. These are

identified in the statutory language as major environmental rules that will have a material adverse impact and will exceed a requirement of state law, federal law, or a delegated federal program, or are adopted solely under the general powers of the agency. With the understanding that this requirement would seldom apply, the commission provided a cost estimate for SB 633 that concluded “based on an assessment of rules adopted by the agency in the past, it is not anticipated that the bill will have significant fiscal implications for the agency due to its limited application.” The commission also noted that the number of rules that would require assessment under the provisions of the bill was not large. This conclusion was based, in part, on the criteria set forth in the bill that exempted adopted rules from the full analysis unless the rule was a major environmental rule that exceeds a federal law. As previously discussed, 42 USC does not require specific programs, methods, or reductions in order to meet the NAAQS; thus, states must develop programs for each nonattainment area to ensure that area will meet the attainment deadlines. Because of the ongoing need to address nonattainment issues, the commission routinely adopts SIP rules. The legislature is presumed to understand this federal scheme. If each rule adopted for inclusion in the SIP was considered to be a major environmental rule that exceeds federal law, then every SIP rule would require the full RIA contemplated by SB 633. This conclusion is inconsistent with the conclusions reached by the commission in its cost estimate and by the Legislative Budget Board (LBB) in its fiscal notes. Because the legislature is presumed to understand the fiscal impacts of the bills it passes, and that presumption is based on information provided by state agencies and the LBB, the commission believes that the intent of SB 633 was only to require the full RIA for rules that are extraordinary in nature. While the SIP rules will have a broad impact, that impact is no greater than is necessary or appropriate to meet the requirements of 42 USC.

For these reasons, rules proposed for inclusion in the SIP fall under the exception in Texas Government Code, §2001.0225(a), because they are required by federal law.

This addition to Chapter 114 is intended to protect the environment or reduce risks to human health from environmental exposure to ozone, but is not anticipated to affect in a material way, the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The new adopted rules will require units of state and local government, businesses, and individuals statewide that own or operate new on-road HDDV produced on or after January 1, 2005, to use CARB-certified engines. The increased cost of \$674 to \$824 per engine will not cause material impact given the high total cost of this type of equipment. This air pollution control program is part of the strategy to reduce emissions of NO_x necessary for the counties included in the HGA nonattainment area to be able to demonstrate attainment with the ozone NAAQS. The commission was required to submit a new SIP revision which will bring the HGA nonattainment area into attainment by 2007. These adopted rules comprise one element of the control strategy in the HGA ozone attainment demonstration SIP, and are necessary for the HGA nonattainment area to be able to demonstrate attainment with the ozone NAAQS.

The commission invited, but did not receive, any specific public comment regarding the draft RIA determination.

TAKINGS IMPACT ASSESSMENT

The commission prepared a takings impact assessment for these adopted rules in accordance with Texas Government Code, §2007.043. The following is a summary of that assessment. The specific purpose of the rulemaking action is to establish emission requirements on model year 2005 and subsequent HDDV that use such engines by requiring these engines to be certified under 13 CCR, §1965.8 throughout the state. These adopted rules will act as an air pollution control strategy to reduce NO_x emissions in the ozone nonattainment areas so that they may demonstrate attainment with the ozone NAAQS and maintain air quality in near nonattainment areas across the state. Promulgation and enforcement of these rules will not burden private, real property. Although these rules do not directly prevent a nuisance or prevent an immediate threat to life or property, the rules do prevent a real and substantial threat to public health and safety, and partially fulfill a federal mandate under 42 USC, §7410. Specifically, the emissions limitations within this rulemaking action were developed in order to meet the ozone NAAQS set by the EPA under 42 USC, §7409. States are primarily responsible for ensuring attainment and maintenance of the NAAQS once the EPA has established them. Under 42 USC, §7410 and related provisions, states must submit, for EPA approval, SIPs that provide for the attainment and maintenance of NAAQS through control programs directed to sources of the pollutants involved. Therefore, the purpose of these adopted rules is to implement cleaner HDDV necessary for the entire state to meet air quality standards established under federal law as NAAQS. Consequently, the exemption which applies to these rules is that of an action reasonably taken to fulfill an obligation mandated by federal law. Therefore, these adopted rules will not constitute a taking under the Texas Government Code, Chapter 2007.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission determined that this rulemaking action relates to an action or actions subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 et seq.), and the commission rules in 30 TAC Chapter 281, Subchapter B, concerning Consistency with the Texas Coastal Management Program. As required by 30 TAC §281.45(a)(3) and 31 TAC §505.11(b)(2), relating to actions and rules subject to the CMP, commission rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission reviewed this action for consistency with the CMP goals and policies in accordance with the rules of the Coastal Coordination Council, and determined that the action is consistent with the applicable CMP goals and policies. The CMP goal applicable to this rulemaking action is the goal to protect, preserve, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas (31 TAC §501.12(1)). No new sources of air contaminants will be authorized and NO_x air emissions will be reduced as a result of these adopted rules. The CMP policy applicable to this rulemaking action is the policy that commission rules comply with regulations in 40 Code of Federal Regulations (CFR), to protect and enhance air quality in the coastal area (31 TAC §501.14(q)). This rulemaking action complies with 40 CFR 50, National Primary and Secondary Ambient Air Quality Standards, and 40 CFR 51, Requirements for Preparation, Adoption, and Submittal Of Implementation Plans. Therefore, in compliance with 31 TAC §505.22(e), this rulemaking action is consistent with CMP goals and policies.

The commission solicited, but received no specific comment from interested persons regarding the consistency of the rules with the CMP during the public comment period.

HEARING AND COMMENTERS

The commission held a public hearing on this proposal in Austin on November 12, 2001, however no persons attended to present oral testimony. The public comment period was scheduled to close on November 12, 2001; however, the United States Postal Service celebrated the Veterans Day holiday on November 12, 2001, therefore, the comment period was extended until 5:00 p.m. on November 13, 2001. Written comments were received from Latham & Watkins, Attorneys at Law on behalf of the International Truck and Engine Corporation (International); the North Carolina Department of Environment and Natural Resources, Division of Air Quality (North Carolina); the Sierra Club, Houston Regional Group (Sierra-Houston); the United States Environmental Protection Agency (EPA); and Howrey, Simon, Arnold, & White, L.L.P. on behalf of Caterpillar, Incorporated (Caterpillar). Many of the written comments received during the comment period resembled those received during California's comment period regarding the same NTE requirements. Therefore, the commission's response to the comments parallel the responses provided in the *Final Statement of Reasons for Rulemaking, Including Summary of Comments and Agency Responses - Public Hearing to Consider Amendments to Adopt Not-to-Exceed and EURO III European Stationary Cycle Emission Test Procedures for the 2005 and Subsequent Model Year Heavy-Duty Diesel Engines* (CARB Response to Comments) document issued by the CARB on December 8, 2000 (Agenda Item Number 00-12-5).

RESPONSE TO COMMENTS

North Carolina and the EPA expressed support of the rules. Sierra-Houston generally supported the rules, however, they did not support the additional flexibility relating to implementation. International and Caterpillar did not support adoption of the rules, because of what they believe to be serious flaws

regarding the legality of California's NTE standard and other supplemental emission standards and test procedures.

North Carolina supported the rules and stated that they have also adopted a rule comparable to the one in Texas.

The commission appreciates the comments of support from North Carolina.

The EPA also supported Texas's adoption of the California NTE rules as a NO_x control strategy, but reminded the commission that even though Texas and California may legally adopt these rules, they may not enforce them unless and until California receives a waiver of preemption from the EPA.

International stated that Texas adoption of the California NTE and other emission standards is inconsistent with FCAA, §177 (42 USC, §7507) which provides that states may adopt California emission standards only after California has obtained a waiver of preemption from the EPA, and that California has not yet applied nor received this waiver.

The commission acknowledges that California at present lacks a waiver; however, as EPA stated in its comments, California and Texas may legally adopt the rules without a waiver. The CARB reports that either a waiver will be obtained or that the California NTE rule, which only adds test procedures designed to ensure existing standards are met, will qualify within its existing waiver of preemption under FCAA, §209(b). The commission appreciates the EPA support for the rules

and will continue to follow California's actions regarding the waiver and its impact on the Texas NTE rules. The commission did not revise the rules in response to these comments.

Sierra-Houston generally supported the rules, however, they did not support the additional flexibility relating to implementation. Sierra-Houston stated a belief that the commission needs to implement these rules as quickly as possible with as few exemptions as possible.

The commission is incorporating by reference California NTE rules for implementation by model year 2005. States may promulgate motor vehicle standards, provided that they are identical to those issued by California, and to that end, §114.707 incorporates the same exemptions from the rules as allowed by the California NTE rules. The commission did not revise these rules in response to the comment.

Sierra-Houston expressed a concern that the wording of these rules is ambiguous regarding the compliance date. Sierra-Houston stated that the compliance date of January 1, 2005 is given, but this does not mark the beginning of the model year. The model year usually begins in late August or early September the year before the model year. Sierra-Houston expressed a concern that the ambiguity concerning when the new engines must meet the standards will leave a four-month gap, and proposed that January 1, 2005 be changed to ensure that the entire 2005 model year is covered by these rules.

The commission does not agree that the compliance date is ambiguous. The wording in §114.709, "Beginning with model year 2005, but no later than January 1, 2005 . . ." specifically covers any

model year 2005 engine, including if they were introduced in August or September of the previous calendar year. Therefore, the commission did not revise the rules in response to the comment.

International commented that the proposed NTE requirement is an emission standard, not simply a test procedure. International stated that the NTE standard will force manufacturers to design their engines to emission control levels significantly lower than the FTP-based standard, thereby effectively creating a new and more stringent *de facto* standard. In addition, the NTE requirements constitute emission standards because, according to CARB's analysis, they are designed to reduce emissions. International stated that the courts have consistently found that such requirements are, by definition, standards.

The commission disagrees with this comment, and defers to the following response by the CARB:

“The NTE and ESC requirements constitute additional test procedures to the FTP since the requirements only provide extended methods for testing heavy-duty diesel engines and vehicles. Emission results from the tests are compared to the existing emission standard, rather than a new emission standard. {C}ARB adopted the standard in 1999 for the 2004 model year to parallel the U.S. EPA's 2004 model year standards. The NTE testing allowance of an additional increment of 25% of the FTP provides manufacturers flexibility to control emissions during operation not included in the FTP. Further, the test procedures ensure the original emission benefits assumed for the existing FTP-based emission standards. The benefits previously assumed during the typical range of in-use operation were no greater than certified emissions. Notwithstanding the emission levels tested by the FTP, some engine manufacturers modified their engines to increase fuel economy during non-FTP driving. This resulted in higher than certified emissions. The NTE

and ESC test procedures will cover a wider range of operating conditions, thereby ensuring that “non-FTP” emissions are at the same levels as FTP emissions.” (CARB Response to Comments; and Response to Comments for Public Hearing held on October 23, 2001 in Baltimore, Maryland Related to a New Regulation .06 under COMAR 26.11.20 Mobile Sources concerning NTE Heavy-Duty Diesel Engine Emission Standards (Maryland Response to Comments)) The commission did not revise the rules in response to the comment.

Caterpillar stated that the NTE rules go well beyond the supplemental test requirements contained in the CARB settlement agreements. Caterpillar stated that these regulations were rushed to completion without the workshops, technical input, and discussions with stakeholders that normally take place during a rulemaking. Caterpillar contended, therefore, that they likely have significant technical flaws, which could be the source of future litigation and uncertainty for the regulated community.

The commission disagrees with this comment. From February to June of 2000, the CARB staff participated in a series of meetings with the engine manufacturers and the EPA regarding the supplemental tests. The major concerns raised by engine manufacturers were extreme operating conditions, such as high altitude and high torque conditions. These conditions represent a small, though challenging, portion of the control zone. Control strategies compliant under these operating conditions are expected in the federal consent decree engines by October 2002. Thus, CARB expects that feasibility in 2005 will not be a problem. Similar to the EPA, the CARB does allow use of some alternate emission control devices. Additionally, the NTE requirements incorporate the NTE deficiency allowance from the EPA final rule for model year 2004 and later

heavy-duty highway engines and vehicles. This deficiency allowance allows manufacturers to gain compliance with the NTE standards for the first few model years even though some specific requirements are not fully met. The CARB recognizes that due to the additional technical requirements, there are other operating conditions under which manufacturers have difficulty controlling emissions. Although compliance is expected prior to full implementation of the requirements, the CARB may grant a deficiency allowance on a case-by-case basis to allow additional time for compliance. Finally, it should be noted that the EPA published a public notice of its intent to adopt the same test procedures into regulation in October 1999 for model year 2004 implementation. Therefore, this is neither a new regulation nor an unfamiliar requirement.

(Sources: EPA Advisory Circular 24-3, dated January 19, 2001; Notice of Proposed Rulemaking, Volume 64, *Federal Register*, pp. 58472-58566, October 29, 1999; Notice of Final Rulemaking, Volume 65, *Federal Register*, pp. 59896-59978, October 6, 2000; CARB Response to Comments; and Maryland Response to Comments) The commission did not revise the rules in response to the comment.

International stated that in violation of the FCAA, California has not shown that the NTE and other supplemental emissions standards are technologically feasible as required by the FCAA and lacks in-use testing data demonstrating compliance with the California NTE standard.

The commission disagrees with the International comments and refers to the CARB Response to Comments, which state that California's adopted requirements only include supplemental test procedures, not emission standards. From February to June of 2000, CARB staff participated in

a series of meetings with the engine manufacturers and the EPA regarding the supplemental tests.

The major concerns raised by engine manufacturers were extreme operating conditions, such as high altitude and high torque conditions. These conditions represent a small, though challenging, portion of the control zone. Control strategies compliant under these operating conditions are expected in the federal consent decree engines by October 2002. Thus, CARB expects that feasibility in 2005 will not be a problem. If there are concerns, California's deficiency provisions may be used to allow additional lead-time for compliance. Again, it should be noted that the EPA published a public notice of its intent to adopt the same test procedures into regulation in October 1999 for model year 2004 implementation. Therefore, this is neither a new regulation nor an unfamiliar requirement. (CARB Response to Comments; and Maryland Response to Comments) The commission did not revise the rules in response to the comment.

Caterpillar stated that if Texas incorporates the CARB regulations, it can expect significant negative economic impact to its trucking industry. Caterpillar commented that trucking companies can be expected to quickly relocate their purchasing point for trucks to states that have not adopted the CARB regulations, which will directly impact the viability of truck distribution companies in Texas. Therefore, Texas will not realize the expected sales tax revenue from the sale of these trucks.

The commission does not agree with these comments. Because more than enough states have committed to adopt the California NTE rules, the commission believes that the California vehicle will become the *de facto* national vehicle, making it economically infeasible for engine manufacturers to produce a second, non-NTE compliant set of engines. In addition, at a CARB-

estimated incremental cost of \$674 to \$824 per NTE engine, the commission does not believe that the trucking industry will find it cost effective to go out of state just to purchase a non-California NTE vehicle. Finally, the purpose of this rulemaking action is not to increase the sales tax revenue from the sale of these trucks, but is to have cleaner air through the manufacture and purchase of cleaner HDDEs. Therefore, the commission did not revise the rules in response to these comments.

Caterpillar stated that Texas will not realize the expected emissions gains, because engines from outside the state will dominate the population of engines operating within the state.

During the initial decision-making process used to evaluate the rules, the commission hired ERG to assess the potential NO_x reductions Texas might realize if the NTE rules were in effect. Based on estimates of miles traveled and fleet turnover due to new purchases, ERG estimated the statewide reductions of NO_x to be 11.2 tpd in 2005 and 31.6 tpd in 2006, given adoption of the CARB NTE rules. Likewise, given adoption of the rules in the Houston area alone, the reductions were estimated by ERG to be 2.4 tpd of NO_x in 2005 and 6.7 tpd NO_x in 2006. These estimated reductions account for the presence of vehicles registered outside of Texas, so there is *not* an assumption that all diesels sold nationally will be NTE compliant. Furthermore, with more states adopting the NTE rules, and the likelihood of a *de facto* national standard, Texas is expected to realize even greater reductions than those estimated by ERG. The commission did not revise the rules in response to the comment.

International Truck contended that the lead time for technological development as required by the FCAA is inadequate. Caterpillar also stated that the CARB regulations will be subject to a successful legal challenge, on the basis that EPA cannot issue the required waiver for California to actually adopt this rule, based upon the FCAA statutory lead-time and stability requirements.

The commission disagrees with this assessment. As stated in the CARB Response to Comments, federal timing constraints do not apply to California's rulemaking, because there are no proposed changes to emission standards that the CARB adopted in 1999. Furthermore, California has the authority to adopt a separate state program, including a certification program, for new motor vehicles and new motor vehicle engines. The commission did not revise the rules in response to the comment.

International stated that as a test procedure, the NTE requirement is fundamentally incompatible with the underlying FTP-based standard it purports to test. International contended that the FCAA and California law both require that a test procedure to be designed to measure conformity with the underlying standard.

The commission disagrees with this comment. There is not a new standard, but rather a more evolved method of testing for compliance with an existing test regime. There is not incompatibility between the NTE rule and the FTP test procedures. As stated in the CARB Response to Comments, the supplemental test procedures measure conformity with the FTP emission standard with an additional 25% allowance to add compliance flexibility. Therefore, the

NTE test does not measure conformance with new and different requirements. The objective of the NTE is to provide a method to address the emissions that are not covered in the current HDDE FTP test and are likely to occur in real world operation. The CARB experience in the past using the FTP test in engine certification, was that many manufacturers optimized their engines to only comply with the known test cycle. Consequently, operation of the engine outside of the test cycle often resulted in higher emissions. Therefore, in order to ensure the reduction of emissions as presented in the certification data, manufacturers are given a range of prescribed test cycles and are required to meet the existing emission limit with a 25% allowance within the range of the NTE control zone. The commission did not revise the rules in response to the comment.

International questioned whether the commission will ensure that the appropriate diesel fuel is available in Texas for HDDEs and HDDVs subject to the NTE standards. International contended that a key requirement of the NTE test fuel provisions is that the certification fuel must be the “predominant” fuel that vehicles employ in-use; and that to obtain engine certification, the manufacturer must submit evidence demonstrating that the test fuel will be the “predominant in-use fuel.” To satisfy this requirement, International stated a belief that the California low-aromatic hydrocarbon fuel must be available in-use in Texas. International further stated that by adopting the California NTE standard, the commission adopts not only the emission standard, but also the NTE certification test fuel specifications. International commented that if the commission fails to ensure that California fuel is the predominant in-use fuel in Texas, then the Texas NTE standards may violate FCAA, §177, and a consumer using federal fuel in a vehicle where the engine is certified to California fuel could be considered misfueling in violation of FCAA, §221(g) (42 USC 7545(g)).

The commission disagrees with this comment. The commission rules only require that the applicable engines and vehicles be certified to meet the California NTE standards and do not make any requirements or recommendations as to what fuel is used to certify such engines and vehicles. According to the California NTE standards for 1993 and subsequent model year diesel-fueled engines, and as adopted by these rules, the petroleum fuel used in exhaust emissions testing may meet the specifications of 40 CFR §86.1313-98(b)(2), Table N98-2, as adopted September 5, 1997, or substantially equivalent specifications approved by the CARB executive officer as an option to the specifications in Table N98-2. The California NTE certification test fuel provisions allow manufacturers to certify using federal fuel or California fuel. The in-use fuel is an option to fuels meeting the specifications in either of the tables. Currently, California-certified vehicles registered in California are not prohibited from crossing state boundaries and fueling with federal fuel, nor does this put the person who fuels a California-certified vehicle in another state in violation of FCAA, §211(g). The commission requirements are no different from what is happening already. (CARB Response to Comments) The commission did not revise the rules in response to the comment.

International commented that the NTE rules are inconsistent with a Statement of Principles (SOP) memo between CARB, some members in the diesel industry, and the EPA. Caterpillar also commented that it cannot support the commission rules unless the commission adopts the supplemental test requirements as described in the CARB settlement agreements with Caterpillar and other engine manufacturers.

The commission disagrees and refers to the CARB Response to Comments, which made the following response regarding this comment when it was raised during the CARB rulemaking.

The SOP relates to the stabilization of emission standards to ensure the lead time needed to satisfy those standards. The CARB approved requirements only consist of additional test procedures and thus, no changes to the existing emission standards. Therefore, this does not affect the SOP. It should also be noted that even during the signing of the SOP in 1995, several engine manufacturers knowingly violated emission standards through use of “defeat devices” that turned off emission controls. Consequently, the supplemental test procedures will ensure that future engines will include technology that results in lower emissions that are consistent with the emission reductions anticipated in the SOP. The commission did not revise the rules in response to the comment.

In response to the Caterpillar comment, California’s NTE requirements parallel the CARB settlement agreements with Caterpillar, with the exception of additional options for manufacturers to meet the requirements and the inclusion of exemptions for “ultra-small volume manufacturers” and “urban buses.” (CARB Response to Comments) The commission did not revise the rules in response to the comment.

Caterpillar stated that there is no assurance that a sufficient number of states would adopt the CARB proposal under FCAA, §177. Caterpillar stated a belief that the program will become a patchwork state-by-state program rather than national program, because many states will not adopt the CARB regulations.

The commission cannot speak for the actions of other states. However, according to the Maryland Response to Comments regarding Maryland's NTE rules, as of October 23, 2001, over 16 states have expressed a commitment to adopt the CARB standards under FCAA, §177. This group of states represents a relatively large portion of the HDDV market and the commission believes that this will be a sufficient market share for the realization of a *de facto* national program. Therefore, the commission did not revise the rules in response to the comment.

STATUTORY AUTHORITY

The new sections are adopted under Texas Water Code (TWC), §5.103, Rules, which authorizes the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under the Texas Health and Safety Code, Texas Clean Air Act (TCAA), §382.017, Rules, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA. The new sections are also adopted under TCAA, §382.011, General Powers and Duties, which authorizes the commission to control the quality of the state's air; §382.012, State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.019, Methods Used to Control and Reduce Emissions From Land Vehicles, which authorizes the commission to adopt rules to control and reduce emissions from engines used to propel land vehicles; and §382.039, Attainment Program, which authorizes the commission to develop and implement transportation programs and other measures necessary to demonstrate attainment and protect the public from exposure to hazardous air contaminants from motor vehicles.

CHAPTER 114: CONTROL OF AIR POLLUTION FROM MOTOR VEHICLES

SUBCHAPTER L: ON-ROAD ENGINES

DIVISION 1: HEAVY-DUTY DIESEL ENGINES

§§114.700, 114.701, 114.702, 114.706, 114.707, 114.709

§114.700. Definitions.

Unless specifically defined in the TCAA or in the rules of the commission, the terms used by the commission have the meaning commonly ascribed to them in the field of air pollution control. In addition to the terms which are defined by the TCAA, the following words and terms, when used in this division, shall have the following meanings, unless the context clearly indicates otherwise.

(1) **Heavy-duty diesel engine (HDDE)** - A diesel engine that is used to propel a heavy-duty vehicle.

(2) **Heavy-duty, on-road vehicle** - Any vehicle, except a passenger vehicle, which can be legally operated on the public roads in the State of Texas and having a manufacturer's gross vehicle weight rating of 14,001 pounds or greater.

(3) **Ultra-small volume manufacturer** - Any manufacturer with California sales less than or equal to 300 new passenger cars, light-duty trucks, medium-duty vehicles, heavy-duty vehicles,

and heavy-duty engines per model year based on the average number of vehicles and engines sold by the manufacturer in the previous three consecutive model years.

(4) Urban bus - A passenger-carrying vehicle powered by a heavy-duty diesel engine (HDDE), or of a type normally powered by a HDDE, with a load capacity of 15 or more passengers and intended primarily for intra-city operation, i.e., within the confines of a city or greater metropolitan area. Urban buses would normally have equipment installed for the collection of fares, and are typically characterized by the absence of equipment and facilities for long distance travel.

§114.701. Applicability.

The rules in this division apply to all heavy-duty diesel engines produced for sale or other use in the State of Texas for the model year 2005 and subsequent model years.

§114.702. Adoption and Incorporation by Reference of California Rules Regarding Exhaust Emission Standards.

The emission standards and associated performance test procedures for new model year 2005 and thereafter heavy-duty diesel engines; as certified for use in California in accordance with Title 13, California Code of Regulations, §1956.8, pertaining to Exhaust Emissions Standards and Test Procedures - 1985 and Subsequent Model Heavy-Duty Engines and Vehicles, as revised by the

California Air Resources Board on December 8, 2000 and effective on July 25, 2001; are hereby incorporated by reference.

§114.706. Recordkeeping Requirements.

All persons who sell, or offer for sale, diesel engines which meet the applicability requirements of §114.701 of this title (relating to Applicability) must maintain, for a minimum of two years, documentation that each applicable engine complies with the requirements of §114.702 of this title (relating to Adoption and Incorporation by Reference of California Rules Regarding Exhaust Emission Standards), and provide those certification documents upon request by the agency.

§114.707. Exemptions and Technology Review.

The following engines are exempt from the requirements of §114.702 of this title (relating to Adoption and Incorporation by Reference of California Rules Regarding Exhaust Emission Standards):

(1) any model year 2005 or 2006 heavy-duty diesel engine (HDDE) manufactured by an ultra-small volume manufacturer or intended for use in an urban bus;

(2) any engine if, followed by a technology review, the California Air Resources Board determines that it is inappropriate to require compliance for HDDE of that particular model year;

(3) any vehicle acquired by a resident of this state for the purpose of replacing a vehicle registered to that resident which was damaged, became inoperative beyond reasonable repair, or which was stolen while out of this state; provided the replacement vehicle is acquired out of the state at the same time the previously-owned vehicle was either damaged, became inoperative, or was stolen; and

(4) any vehicle transferred by inheritance, or by a decree of divorce, dissolution, or legal separation entered by a court of competent jurisdiction.

§114.709. Affected Counties and Compliance Schedules.

Beginning with model year 2005, but no later than January 1, 2005, all sales and offers of sale of new heavy-duty diesel-powered, on-road vehicles in the State of Texas shall comply with §§114.701, 114.702, and 114.706 of this title (relating to Applicability; Adoption and Incorporation by Reference of California Rules Regarding Exhaust Emission Standards; and Recordkeeping Requirements).