

The Texas Commission on Environmental Quality (TCEQ or commission) proposes amendments to §§114.6, 114.312, 114.313, and 114.315 - 114.318.

The amended sections are proposed to be submitted to the United States Environmental Protection Agency (EPA) as revisions to the state implementation plan (SIP).

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE PROPOSED RULES

On March 9, 2005, the commission adopted revisions to the low emission diesel fuel (LED) rules (§§114.312 - 114.319) and submitted those amendments as a SIP revision to the EPA on March 23, 2005. Subsequently, EPA raised concerns with certain provisions of §114.315 that give the state unilateral authority to accept alternative methods of compliance. Specifically, EPA stated that §114.315(b) and (c)(4)(C)(ii)(V) was problematic in regard to EPA's approval of the rules and SIP revision.

On July 5, 2005, the executive director of the TCEQ (ED) wrote to the EPA's Region 6 director, Mayor Greene, and requested that EPA proceed with its review of the SIP submittal, excluding the problematic provisions of §114.315, and stated that the commission would address these provisions in a future rulemaking. On August 10, 2005, the EPA published a notice of proposed rulemaking in the *Federal Register* (70 FR 46448), proposing to approve revisions to the SIP relating to changes to the Texas Low-Emission Diesel Fuel (TxLED) Program. In the *Federal Register* notice, the EPA proposed to approve §114.315 excluding the provisions of §114.315 as the ED had requested. On October 6, 2005, the EPA published a final rule in the *Federal Register* (70 FR 58325), approving the

SIP revision submitted by the State of Texas making changes to the TxLED Program, again excluding the provisions of §114.315 as the ED had requested. The commission is proposing in this rulemaking to make revisions to the provisions of the LED rules that EPA has excluded from its approval. This proposed rulemaking would make changes to §114.315(b) so that EPA would be consulted before the ED determines to approve an alternative test method and remove §114.315(c)(4)(C)(ii)(V).

These proposed rules would also address issues raised by EPA regarding its consideration of alternative emission reduction plans that have been submitted to the commission for compliance with the LED rules as allowed under §114.318. Under the current rules, the alternative emission reduction plans must be approved by both the commission and EPA. The ED has approved 17 alternative emission reduction plans to date. The EPA determined that the commission must submit the alternative emission reduction plans for its review and consideration in the form of a SIP revision, requiring public review of each alternative emission reduction plan. However, many of these alternative emission reduction plans are considered to be confidential business information by the diesel fuel producers that submitted these plans. In addition, under this approval method, the commission would be required to submit a new SIP revision any time a producer amended its alternative emission reduction plan. This proposed rulemaking would make changes to §114.318 to establish a method and process, or protocol, by which all alternative emission reduction plans could be approved by the commission and EPA without the need for a SIP revision for each individual plan. The ED notified all holders of currently approved alternative emission reduction plans of the commission's intention to develop a new protocol by which these plans must demonstrate equivalent reductions in the emissions of oxides of nitrogen (NO_x) in order to maintain commission approval and gain EPA approval. The

ED also indicated that the proposed rules may impact the approvability of some fuel strategies in these currently approved plans; however, the commission believes that the protocol will provide mechanisms for compliance that allow producers to maintain a majority of the strategies in their plans. Under this proposal, ED approval of all currently approved alternative emission reduction plans will expire December 31, 2006. Under the proposed changes to §114.318, any producers wishing to use the alternative emission reduction plan approach for compliance with the LED rules will be required to submit an alternative emission reduction plan that demonstrates under the new protocol that their fuel strategies will achieve NO_x emission reductions equivalent to, or better than, those reductions attributed to the use of LED. The commission believes that a December 31, 2006 expiration date provides an appropriate amount of time for producers to submit an alternative emission reduction plan that would be approvable under the new protocol.

On October 14, 2005, the commission held a stakeholder meeting at its Austin headquarters to solicit feedback on a draft replicable protocol for state and federal approval of alternative emission reduction plans. All of the comments received by the commission as a result of this meeting were considered during the preparation of this proposed rulemaking. Comments received from the stakeholder meeting will not be considered formal comments for the purposes of this rulemaking.

The LED amendments adopted on March 9, 2005, contained changes that included section restructuring, which require revisions to other sections of Subchapter H, Division 2 that were not modified in that rulemaking in order to correct citation references for consistency and accuracy. This proposed rulemaking would make changes to §114.313, Designated Alternative Limits, and §114.317,

Exemptions to Low Emission Diesel Requirements, to address corrections that are needed to accurately cite rule references.

The commission is also proposing to make changes to the LED rules concerning the testing requirements for the approval of alternative diesel fuel formulations specified in §114.315 that are needed for procedure clarification and for consistency with testing procedures and guidance approved by the EPA and the regulations adopted by the California Air Resource Board (CARB) from which the LED rules were initially patterned. The EPA has requested that the commission make changes to these testing requirements to ensure the consistency and accuracy of emission testing results that would be used by the commission to determine approval of an alternative diesel fuel formulation for compliance with LED requirements. The proposed changes would also apply to the testing of diesel fuel additive-based formulations.

SECTION BY SECTION DISCUSSION

Administrative changes are proposed throughout the rules to be consistent with *Texas Register* requirements and agency guidelines.

The proposed changes to §114.6 would amend the definition of additive to clarify that substances that are required to be approved by and registered with the EPA are also considered to be additives under these rules, even if the EPA action has not occurred. In addition, the definition of additive will no longer reference the exclusion of an additive composed solely of carbon and/or hydrogen because this exclusion is already provided under 40 Code of Federal Regulations (CFR) Part 79 as it relates to fuel

additive registration requirements. Also, the proposed changes would amend the definitions of final blend and low emission diesel (LED) for consistency relating to the acronym for LED and the definition of gasoline for accuracy in citing the reference to the American Society for Testing and Materials (ASTM) standard.

The proposed changes to §114.312(f) would remove volatile organic compounds (VOCs) from the comparison requirements that are needed for consistency with the proposed changes to §114.315(c)(5) as described in the paragraph concerning changes to §114.315. Diesel engines emit very little VOC emissions and therefore, their contribution to total VOC emissions inventories is very small as well. In addition, since test data from alternative diesel fuel formulation approval testing has demonstrated that VOC emissions from the engines being tested on both the reference fuel and candidate fuels are significantly below the EPA's emission certification standards for these test engines, there is no additional benefit in comparing VOC emissions when determining whether an alternative formulation can achieve NO_x emission reductions that are comparable to those attributed to LED in the SIP.

The proposed changes to §114.313 would amend references to other sections of Subchapter H, Division 2, as needed for accuracy and consistency.

The proposed changes to §114.315(a) would specify the correlation equation to be used with ASTM Test Method D5186 (Standard Test Method for Determination of Aromatic Content and Polynuclear Aromatic Content of Diesel Fuels and Aviation Turbine Fuels by Supercritical Fluid Chromatography) to convert the supercritical fluid chromatography (SFC) results in mass percent to volume percent.

The proposed changes to §114.315(b) would require the ED to consult with the EPA before approving an alternative to the test methods listed under §114.315(a) in response to EPA's comments relating to ED approval without EPA review.

The proposed changes to §114.315(c) would amend the procedures and testing requirements for alternative diesel fuel formulations to clarify what information is required to be submitted as part of the test protocol; specify that the sulfur content of the candidate fuel must not exceed 15 parts per million; clarify how many hot start emission test cycles will be required for each hot start only alternative test sequence; and remove the Alternative 5 test sequence in response to EPA's comments relating to ED approval without EPA review. These proposed changes would also require that the engine used for the testing have a minimum of 125 hours of use and exhibit stable operation before beginning the testing and be within 110% of the applicable emission standards when tested on the reference fuel. This change is needed to be consistent with the testing procedures and guidance approved for EPA's Environmental Technology Verification (ETV) Program. The proposed changes to §114.315(c)(5) would only require that the NO_x and particulate matter (PM) emissions of the reference and candidate fuels be compared when determining whether an alternative diesel fuel formulation is comparable or better than LED. This change is needed for consistency with the CARB regulations for approving alternative diesel fuel formulations since CARB-approved formulations are acceptable under §114.312(e). In addition, these changes would also require that the average individual emissions of total hydrocarbons (THC) and non-methane hydrocarbons (NMHC), respectively, recorded during testing with the candidate fuel not exceed 110% of the test engine's applicable exhaust emission standards in order to prevent unacceptable increases in VOC emissions. The proposed changes to

§114.315(c)(6) are needed for consistency with the approval notification provisions in §114.315(d).

The proposed changes to §114.315(d) to remove THC and NMHC from the comparison requirements are needed for consistency with the proposed changes to §114.315(c)(5).

The commission is requesting comments on whether additional “no-harm” testing should be required as part of the alternative diesel fuel formulation approval process to provide assurance that approved fuels and fuel additives are not harmful to the mechanical operation of diesel engines and what test protocols and/or test methods should be used if “no-harm” testing is required.

The proposed changes to §114.316(b) would clarify that only those records relating to sampling require a statement declaring the appropriate aromatic hydrocarbon content standard of the fuel. The proposed changes to §114.316(k) would require producers who have alternative emission reduction plans approved under §114.318 to include information in their quarterly report that is required to be collected in accordance with the sampling and testing requirements of this subsection and to also include a reconciliation of the quarter's transactions relative to the requirements of this section for the appropriate fuel components of the diesel fuel that the projected emission reductions demonstrated in the producer's alternative emission reduction plan were based upon.

The proposed changes to §114.317 would amend references to other sections of this division as needed for accuracy and consistency.

The proposed changes to §114.318 would establish a protocol that producers must follow when developing alternative emission reduction plans to ensure that equivalent emission reductions are being achieved. These proposed changes would allow producers to submit alternative emission reduction plans using the EPA's Unified Model to demonstrate that the average of all on-road diesel fuel produced in any given calendar year that is sold, offered for sale, supplied, or offered for supply by the producer in the counties affected by these rules achieves at least a 5.5% reduction in NO_x emissions for the year 2007, and at least a 6.2% reduction from the average of all non-road diesel produced by the producer for use in the affected counties, equating to an average reduction of approximately 5.7% for both on-road and non-road diesel combined. Currently, a producer may use the Unified Model under §114.315(d) to demonstrate compliance using a specific fuel formulation. This proposed option would allow for averaging of different fuel formulations within the same geographic area.

In addition, the proposed changes to §114.318 would include procedures to allow alternative emission reduction plans to include diesel credits from early gasoline sulfur reduction that could be used in a 90-county area. The proposed diesel credits from early gasoline sulfur reductions would be calculated from the actual barrels of lower sulfur gasoline produced and supplied to the affected counties by the producer and the level of gasoline sulfur reduction by using specific offset ratios to determine the number of diesel credits. The proposed offset ratios were developed using the EPA MOBILE6 emissions model and calculating the percentage of emission reduction from varying the sulfur level of gasoline in 2003, 2004, and 2005, from the MOBILE6 default gasoline sulfur level assumptions for those years, then weighting the reduction percentages by vehicle type between the four classes of gasoline vehicles with catalysts. The proposed number of lower sulfur gasoline barrels needed to

offset noncompliant diesel fuel was calculated by comparing the reduction percentages to the applicable emissions inventory of on- and off-road diesel fueled vehicles and equipment. The NO_x emission inventories change each year. However, the overall NO_x emissions inventory from on- and off-road diesel engines is always greater than just the on-road NO_x emissions inventory from gasoline engines. Therefore, in working out the appropriate offset ratio, the reductions in NO_x emissions from lower sulfur gasoline is discounted as a reflection of its smaller overall contribution to the inventory. Because gasoline credits would start to be used in 2007, the 2007 diesel NO_x emissions inventory is used and remains a constant for these calculations. The weighted average NO_x emissions reduction achieved by using LED in the on-road and non-road fleets in 2007 is 5.78%.

For example, the gasoline NO_x emissions inventory in 2003 for the 90-county area was 229.51 tons per day. A reduction in sulfur of 25% achieves a 2.75% reduction in gasoline NO_x emissions. The 2007 on- and off-road diesel NO_x emissions inventory for the same 90-county area is 450.56 tons. To calculate the appropriate gasoline to diesel offset ratio the following equation can be used: the 2007 diesel inventory multiplied by the weighted average LED reductions in 2007 divided by the 2003 gasoline inventory multiplied by the 2003 MOBILE6 gasoline emission reduction associated with a 25% reduction in sulfur level, i.e., $((450.56) \times (0.0578)) / ((229.51) \times (0.0275))$, which calculates an offset ratio of 4.12. Using this example, a producer that supplied gasoline with a 25% reduction in sulfur to the 90-county area in 2003 would be allowed to offset one barrel of noncompliant diesel fuel being supplied to the 90-county area in the years 2006 - 2010 for each 4.12 barrels of lower sulfur gasoline produced in 2003.

Also, the proposed changes to §114.318 would provide an option to calculate diesel credits from early gasoline sulfur reduction in certain counties when used in combination with a “cleaner” diesel fuel, calculated with the Unified Model from the average fuel properties of the diesel fuel supplied by the producer in the 90-county area, as part of the equation. If a producer is supplying a cleaner diesel fuel to the 90-county area, although not as clean as LED, the proposed rule would allow the producer to use the emission reduction calculated with the Unified Model to decrease the offset ratio of gasoline. For example, if a producer elects to produce a diesel fuel that achieves a 2.0% NO_x emissions reduction in 2007, the producer would calculate an offset ratio as follows: $((450.56) \times (0.0578 - 0.02)) / ((229.51) \times (0.0275))$, for an offset ratio of 2.69. In this case, only 2.69 barrels of lower sulfur gasoline would be needed to offset each barrel of “cleaner” noncompliant diesel fuel.

Under this proposed rule, credits from early gasoline sulfur reduction can only be generated from the gasoline supplied by the producer in 2003, 2004, and 2005, to the counties listed under §114.319(b)(4) and these credits can only be used to demonstrate compliance through December 31, 2010. In addition, the proposed changes to §114.318 would require producers to submit alternative emission reduction plans under this new protocol to the ED no later than December 31, 2006, and would require the newly submitted plans to be approved or disapproved by the ED within 45 days of submittal.

The commission is requesting comments on the feasibility of accepting residual NO_x emission benefits from the supply of early lower sulfur gasoline as a creditable fuel strategy for producers to submit as part of an alternative emission reduction plan and how best to calculate the residual NO_x emission benefit using currently available EPA-approvable calculation methodologies.

The commission is also requesting comments on whether to allow credits from early gasoline sulfur reduction to be used until December 31, 2010, in the Beaumont-Port Arthur (BPA) ozone nonattainment area containing Hardin, Jefferson, and Orange Counties.

FISCAL NOTE: COSTS TO STATE AND LOCAL GOVERNMENT

Nina Chamness, Analyst, Strategic Planning and Grants Management Section, determined that for the first five-year period the proposed rules are in effect, no fiscal implications are anticipated for the agency or other units of state or local governments as a result of administration or enforcement of the proposed rules. The proposed rulemaking contains revisions that pertain to the regulation and production of LED. Any fiscal implications will primarily affect the producer and suppliers, which typically do not include governmental entities, of LED. The proposed changes would create a protocol for alternative emission reduction plans that can be approved by EPA and would make the TxLED Program requirements more consistent with existing CARB regulations and EPA guidelines; thus, the changes should not create any supply shortage or price fluctuations that could adversely affect state and local governments' diesel-fueled vehicle fleets.

This proposed rulemaking would correct rule references made in an earlier rulemaking; require EPA approval, in addition to approval given by the ED, for alternative test methods; establish a method and process to allow the commission and EPA to approve alternative emission reduction plans, or revisions to those plans, without requiring a SIP revision; and clarify the criteria for emission tests conducted to determine LED compliance. Diesel fuel producers that produce and supply diesel fuel to the 110 central and eastern Texas counties affected by the LED regulations may be impacted by the changes

proposed to establish a method or process to allow EPA to approve alternative emission reduction plans without having to revise the SIP. If diesel fuel producers are required to change fuel formulations produced under current rules to meet the proposed methods and process to meet EPA approval, they may incur additional costs in developing new approvable fuel formulations that demonstrate equivalent NO_x emission reductions.

PUBLIC BENEFITS AND COSTS

Ms. Chamness also determined that for each year of the first five years the proposed rules are in effect, the public benefit anticipated from the changes seen in the proposed rules will be greater clarification of LED requirements and increased flexibility in meeting criteria for alternative fuel strategies, leading to more rapid EPA approval of alternative emission reduction plans and SIPs.

Diesel producers producing and distributing diesel fuel in the counties affected by the LED rules may or may not incur additional fiscal costs if currently produced fuel formulations or alternative emission reduction plans do not meet proposed criteria. The proposed protocol may impact the approvability of some fuel strategies in the currently approved alternative emission reduction plans; however, the proposed rules should provide mechanisms for compliance that allow producers to maintain a majority of the strategies in their plans. Developing alternative fuel strategies is voluntary and there are a variety of methods to choose from. It is not known if changing fuel formulations or alternative emission reduction plans to meet the proposed requirements will generate additional costs or generate additional savings. Any costs or savings generated will depend on the producer and the method chosen to meet proposed standards.

SMALL BUSINESS AND MICRO-BUSINESS ASSESSMENT

No adverse fiscal implications are anticipated for small or micro-businesses. Typically, producers of diesel fuel are not considered to be a small or micro-business. If a small or micro-business were to produce or distribute diesel fuel in the affected counties, it would be subject to the same cost increases or savings in providing alternative fuel strategies as a large business.

LOCAL EMPLOYMENT IMPACT STATEMENT

The commission reviewed this proposed rulemaking and determined that a local employment impact statement is not required because the proposed rules do not adversely affect a local economy in a material way for the first five years that the proposed rules are in effect.

DRAFT REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the proposed rulemaking considering the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rulemaking does not meet the definition of a “major environmental rule.” 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 proposed amendments to §§114.6, 114.312, 114.313, and 114.315 - 114.318 would provide for EPA consultation prior to commission approval of alternative test methods; establish a protocol by which alternative emission reduction plans, or revisions to those plans, could be approved by the EPA without the need for individual SIP revisions for each plan; make alternative formulation testing

requirements consistent with EPA guidance and CARB regulations; and make corrections to citations for accuracy and consistency. In addition, the proposed amendments are intended to provide additional clarification and flexibility in the LED air pollution control program as part of the strategy to reduce emissions of NO_x necessary for the counties in the Houston-Galveston-Brazoria (HGB), BPA, and Dallas-Fort Worth (DFW) nonattainment areas to be able to demonstrate attainment with the ozone national ambient air quality standard (NAAQS). While this strategy is intended to protect the environment by reducing NO_x emissions that help form ozone, the commission does not find that the diesel fuel producers and importers covered by this rulemaking comprise a sector of the economy, or that the revisions proposed in this rulemaking will adversely affect in a material way the economy, productivity, competition, jobs, the environment, or the public health and safety in the HGB, BPA, and DFW nonattainment areas. This rulemaking proposes to address EPA concerns regarding its input on test methods and review of alternative formulations; create consistency with EPA and CARB guidance and regulations of which the refining industry is familiar; and create a protocol for alternative emission reduction plans that will simplify EPA approval of all alternative emission reduction plans and protect producers' potentially confidential information.

The proposed amendments to Chapter 114 are not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225(b), because the proposed rules do not meet any of the four applicability requirements. Texas Government Code, §2001.0225 only applies to a major environmental rule, the result of which is to: 1) exceed a standard set by federal law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of

the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

Specifically, the LED requirements in Chapter 114 were developed as part of the control strategy to meet the ozone NAAQS set by the EPA under Federal Clean Air Act (FCAA), 42 United States Code (USC), §7409, and therefore meet a federal requirement. The amendments to this chapter were developed in order to provide more clarity and consistency to the LED requirements, provide a smoother process for EPA approval of alternative emission reduction plans and revisions to those plans, and to address concerns from the EPA. FCAA, 42 USC, §7410, requires states to adopt and submit a SIP that provides for “implementation, maintenance, and enforcement” of the primary NAAQS in each air quality control region of the state. While 42 USC, §7410 does not require specific programs, methods, or reductions in order to meet the standard, SIPs 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). While 42 USC, §§7401 *et seq.* does require some specific measures for SIP purposes, like the inspection and maintenance program, the statute also provides flexibility for states to select other necessary or appropriate measures. The federal government, in implementing 42 USC, §§7401 *et seq.*, recognized that the states are in the best position to determine what programs and controls are necessary or appropriate to meet the NAAQS, and provided for the ability of states and the public to collaborate on the best methods for attaining the NAAQS within a particular state. However, this flexibility does not

relieve a state from developing and submitting a SIP that meets the requirements of 42 USC, §7410.

Thus, while specific measures are not generally required, the emission reductions are required. States are not free to ignore the requirements of 42 USC, §7410, and must develop programs to assure that the nonattainment areas of the state will be brought into attainment on schedule.

As discussed earlier in this preamble, this rulemaking action implements requirements of 42 USC, §§7401 *et seq.* There is no contract or delegation agreement that covers the topic that is the subject of this action. Therefore, the proposed rulemaking does not exceed a standard set by federal law, exceed an express requirement of state law, or exceed a requirement of a delegation agreement. Finally, this rulemaking action was not developed solely under the general powers of the agency, but is authorized by specific sections of Texas Health and Safety Code, Chapter 382 (also known as the Texas Clean Air Act), and the Texas Water Code, which are cited in the STATUTORY AUTHORITY section of this preamble, including Texas Health and Safety Code, §§382.012, 382.019, 382.202, and 382.208.

Therefore, this rulemaking action is not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225(b), because the proposed rulemaking does not meet any of the four applicability requirements. The commission invites public comment on the draft regulatory impact analysis determination.

TAKINGS IMPACT ASSESSMENT

The commission completed a takings impact analysis for the proposed rulemaking action under Texas Government Code, §2007.043. The specific purpose of this strategy is to achieve reductions of NO_x emissions to reduce ozone formation in the HGB, BPA, and DFW nonattainment areas and thus help

bring these areas into compliance with the air quality standards established under federal law as NAAQS for ozone. If adopted, the amendments to §§114.6, 114.312, 114.313, and 114.315 - 114.318 would provide for EPA consultation prior to commission approval of alternative test methods; establish a protocol by which alternative emission reduction plans, or revisions to those plans, could be approved by the EPA without the need for individual SIP revisions for each plan; make alternative formulation testing requirements consistent with EPA guidance and CARB regulations; and make corrections to citations for accuracy and consistency. These amendments will not place a burden on private, real property because this action does not require an investment in the permanent installation of new refinery processing equipment.

Texas Government Code, §2007.003(b)(4), provides that Chapter 2007 does not apply to this proposed rulemaking action, because it is reasonably taken to fulfill an obligation mandated by federal law. Specifically, the emission limitations and control requirements of the LED air pollution control program 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 NAAQS once the EPA has established them. Under 42 USC, §7410, and related provisions, states must submit, for approval by the EPA, SIPs that provide for the attainment and maintenance of NAAQS through control programs directed to sources of the pollutants involved. Therefore, one purpose of this rulemaking action is to provide additional clarification and flexibility in implementing the LED program necessary for the state's nonattainment areas to meet the air quality standards established under federal law as NAAQS. Attainment of the ozone standard will eventually require substantial reductions in NO_x emissions as

well as VOC emissions. This rulemaking is only one step among many necessary for attaining the ozone standard.

In addition, Texas Government Code, §2007.003(b)(13), states that Texas Government Code, Chapter 2007 does not apply to an action that: 1) is taken in response to a real and substantial threat to public health and safety; 2) is designed to significantly advance the health and safety purpose; and 3) does not impose a greater burden than is necessary to achieve the health and safety purpose. Although the rules do not directly prevent a nuisance or prevent an immediate threat to life or property, they do prevent a real and substantial threat to public health and safety and significantly advance the health and safety purpose. This action is taken in response to the HGB, BPA, and DFW areas exceeding the federal ozone NAAQS, that adversely affects public health, primarily through irritation of the lungs. The action significantly advances the health and safety purpose by improving the LED program that reduces ozone levels in these nonattainment areas and 90 central and eastern Texas counties. Consequently, these proposed rules meet the exemption in Texas Government Code, §2007.003(b)(13). This rulemaking action therefore meets the requirements of Texas Government Code, §2007.003(b)(4) and (13). For these reasons, the proposed rules do not constitute a takings under Texas Government Code, Chapter 2007.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission determined the proposed rulemaking 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 regulations of the Coastal Coordination Council and determined that the proposed amendments are consistent with the applicable CMP goal expressed in 31 TAC §501.12(1) of protecting and preserving the quality and values of coastal natural resource areas, and the policy in 31 TAC §501.14(q), which requires that the commission protect air quality in coastal areas. The proposed rulemaking will ensure that the amendments comply with 40 CFR Part 50, National Primary and Secondary Air Quality Standards, and 40 CFR Part 51, Requirements for Preparation, Adoption, and Submittal of Implementation Plans. This rulemaking action is consistent with CMP goals and policies, in compliance with 31 TAC §505.22(e).

The commission solicits comments on the consistency of the proposed amendments with the CMP during the public comment period.

ANNOUNCEMENT OF HEARING

The commission will hold a public hearing on this proposal in Austin on January 10, 2006, at 10:00 a.m. in Building E, Room 201S, at the Texas Commission on Environmental Quality complex located at 12100 Park 35 Circle. The hearing will be structured for the receipt of oral or written comments by interested persons. Registration will begin 30 minutes prior to the hearing. Individuals may present oral or written statements when called upon in order of registration. A time limit may be established at

the hearing to assure that enough time is allowed for every interested person to speak. There will be no open discussion during the hearing; however, agency staff members will be available to discuss the proposal 30 minutes prior to the hearing and will answer questions before and after the hearing.

Persons who have special communication or other accommodation needs who are planning to attend the hearing should contact Lola Brown, Office of Legal Services, at (512) 239-0348. Requests should be made as far in advance as possible.

SUBMITTAL OF COMMENTS

Written comments may be submitted to Brandon Smith, MC 206, Chief Engineer's Office, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087; faxed to (512) 239-5687; or emailed to *siprules@tceq.state.tx.us*. All comments should reference Rule Project Number 2005-063-114-EN. Comments must be received by 5:00 p.m. on January 17, 2006. The proposed rules may be viewed on the commission's Web site at *http://www.tceq.state.tx.us/nav/rules/propose_adopt.html*. For further information, please contact Morris Brown at (512) 239-1438.

STATUTORY AUTHORITY

The amendment is proposed under Texas Water Code, §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the Texas Water Code. The amendment is also proposed under Texas Health and Safety Code, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act; §382.019, concerning 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; §382.202, concerning Vehicle Emissions Inspection and Maintenance Program, which authorizes the commission to establish vehicle fuel content standards after January 1, 2004, as long as distribution of TxLED as described in the SIP is not required prior to February 1, 2005, and authorizes the commission to consider alternative emission reduction plans to comply with TxLED requirements; and §382.208, concerning 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.

The proposed amendment implements Texas Water Code, §5.103 and §5.105, and Texas Health and Safety Code, §§382.002, 382.011, 382.012, 382.017, 382.019, 382.202, and 382.208.

SUBCHAPTER A: DEFINITIONS

§114.6

§114.6. Low Emission Fuel Definitions.

Unless specifically defined in Texas Health and Safety Code, Chapter 382, also known as the Texas Clean Air Act (TCAA), or in the rules of the commission, the terms used in this subchapter have the meanings commonly ascribed to them in the field of air pollution control. In addition to the terms that are defined by [the] TCAA, §3.2, and §101.1 of this title (relating to Definitions), the following words and terms, when used in Subchapter H of this chapter (relating to Low Emission Fuels), have the following meanings, unless the context clearly indicates otherwise.

(1) **Additive**--Any substance[, other than one composed solely of carbon and/or hydrogen,] that is intentionally added to gasoline or diesel fuel, including any added to a motor vehicle fuel system, and that is not intentionally removed prior to sale or use and that is required to be approved by and registered with the United States Environmental Protection Agency in accordance with 40 Code of Federal Regulations Part 79.

(2) - (7) (No change.)

(8) **Final blend**--A distinct quantity of low emission diesel fuel (LED) that is introduced into commerce without further alteration, which would tend to affect a regulated [LED] specification of LED [the fuel].

(9) (No change.)

(10) **Gasoline**--Any fuel that is commonly or commercially known, sold, or represented as gasoline, in accordance with American Society for Testing and Materials (ASTM) [ASTM Test Method] D4814-99 (Standard Specification for Automotive Spark-Ignition Engine Fuel), dated 1999.

(11) - (13) (No change.)

(14) **Low emission diesel fuel (LED)**--Any diesel fuel:

(A) - (C) (No change.)

(15) - (22) (No change.)

SUBCHAPTER H: LOW EMISSION FUELS

DIVISION 2: LOW EMISSION DIESEL

§§114.312, 114.313, 114.315 - 114.318

STATUTORY AUTHORITY

The amendments are proposed under Texas Water Code, §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the Texas Water Code. The amendments are also proposed under Texas Health and Safety Code, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act; §382.019, concerning 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; §382.202, concerning Vehicle Emissions Inspection and Maintenance Program, which authorizes the commission to establish vehicle fuel content standards after January 1, 2004, as long as distribution of TxLED as described in the SIP is not required prior to February 1, 2005, and authorizes the commission to consider alternative emission reduction plans to comply with TxLED requirements; and §382.208, concerning 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.

The proposed amendments implement Texas Water Code, §5.103 and §5.105, and Texas Health and Safety Code, §§382.002, 382.011, 382.012, 382.017, 382.019, 382.202, and 382.208.

§114.312. Low Emission Diesel Standards.

(a) No person shall sell, offer for sale, supply, or offer for supply, dispense, transfer, allow the transfer, place, store, or hold any diesel fuel in any stationary tank, reservoir, or other container in the counties listed in §114.319 of this title (relating to Affected Counties and Compliance Dates), that may ultimately be used to power a diesel fueled compression-ignition engine in the affected counties, that does not meet either the low emission diesel fuel (LED) standards of subsections (b) and (c) of this section, or the requirements of subsection (f) of this section.

(b) - (e) (No change.)

(f) Alternative diesel fuel formulations that the producer has demonstrated to the satisfaction of the executive director, through emissions and performance testing methods prescribed in §114.315(c) and (d) of this title (relating to Approved Test Methods), as achieving comparable or better reductions in emissions of oxides of nitrogen[, volatile organic compounds,] and particulate matter may be used to satisfy the requirements of subsections (b) and (c) of this section. For alternative diesel fuel

formulations that incorporate additive systems, the estimated emissions benefits of the alternative diesel fuel formulation may be determined by comparing the emissions and performance characteristics of the alternative diesel fuel with the additive system versus the emissions and performance characteristics of a diesel fuel without the additive system, as determined by the testing methods prescribed in §114.315(c) and (d) of this title.

§114.313. Designated Alternate Limits.

(a) A producer or importer may assign a designated alternative limit (DAL) for aromatic hydrocarbon content to a final blend of low emission diesel fuel (LED) produced or imported by the producer or importer, except for that LED produced in accordance with §114.312(f) [§114.312(g)] of this title (relating to Low Emission Diesel Standards), if the following conditions are met.

(1) (No change.)

(2) The producer or importer shall notify the executive director of the volume (in barrels) and the DAL of the final blend. This notification shall be received by the executive director before the start of physical transfer of the LED from the production or import facility, and in no case less than 12 hours before the producer [either] completes physical transfer of the final blend.

(3) Within 90 days before or after the start of physical transfer of any final blend of LED to which a producer or importer has assigned a DAL exceeding the limit for aromatic

hydrocarbon content specified in §114.312(b) [§114.312(c)] of this title, the producer or importer shall complete physical transfer from the production or import facility of LED in sufficient quantity and with a DAL sufficiently below the standard specified in §114.312(b) [§114.312(c)] of this title to offset the volume of aromatic hydrocarbons in the LED reported in excess of the standard.

(b) No person shall sell, offer for sale, or supply LED, in a final blend to which a producer or importer has assigned a DAL:

(1) exceeding the standard specified in §114.312(b) [§114.312(c)] of this title for aromatic hydrocarbon content, where the total volume of the final blend sold, offered for sale, or supplied exceeds the volume reported to the executive director in accordance with subsection (a)(2) of this section; nor

(2) less than the standard specified in §114.312(b) [§114.312(c)] of this title for aromatic hydrocarbon content, where the total volume of the final blend sold, offered for sale, or supplied is less than the volume reported to the executive director in accordance with subsection (a)(2) of this section.

(c) (No change.)

§114.315. Approved Test Methods.

(a) Compliance with the diesel fuel content requirements of this division must be determined by applying the appropriate test methods and procedures specified in the active version of American Society for Testing and Materials (ASTM) D975 (Standard Specification for Diesel Fuel Oils), or the following supplementary methods, as appropriate.

(1) The aromatic hydrocarbon content may be determined by the active version of ASTM Test Method D5186 (Standard Test Method for Determination of Aromatic Content and Polynuclear Aromatic Content of Diesel Fuels and Aviation Turbine Fuels by Supercritical Fluid Chromatography). The following correlation equation must be used to convert the supercritical fluid chromatography (SFC) results in mass percent to volume percent: aromatic hydrocarbons expressed in percent by volume = 0.916 x (aromatic hydrocarbons expressed in percent by weight) + 1.33.

(2) The polycyclic aromatic hydrocarbon (also referred to as polynuclear aromatic hydrocarbons or PAH) content may be determined by the active version of ASTM Test Method D5186 (Standard Test Method for Determination of Aromatic Content and Polynuclear Aromatic Content of Diesel Fuels and Aviation Turbine Fuels by Supercritical Fluid Chromatography). The correlation equation specified in paragraph (1) of this subsection must be used to convert the SFC results in mass percent to volume percent.

(3) - (7) (No change.)

(b) Modifications to the testing methods and procedures in this section may be approved by the executive director after consultation with the United States Environmental Protection Agency (EPA).

(c) The executive director, upon application, may approve alternative diesel fuel formulations as prescribed under §114.312(f) of this title (relating to Low Emission Diesel Standards) in accordance with the following procedures.

(1) The applicant shall initially submit a proposed test protocol to the executive director for approval, that must include:

(A) (No change.)

(B) a testing plan with test procedures that are consistent with the requirements of paragraphs (2) and (4) of this subsection;

(C) fuel analysis test data showing that the candidate fuel meets the specifications for the appropriate Grade No. 1-D S15 [or S500,] or Grade No. 2-D S15 [or S500] diesel fuel as specified in the active version of ASTM D975 [(Standard Specification for Diesel Fuel Oils)], except for lubricity, and identifying the characteristics of the candidate fuel identified in paragraph (2) of this subsection;

(D) fuel analysis test data showing that the fuel to be used as the reference fuel satisfies the characteristics identified in paragraph (3) of this subsection;

(E) a detailed description of the reasonable quality assurance and quality control procedures that will be implemented by the entity identified in subparagraph (A) of this paragraph to ensure the validity of the testing being performed; and

(F) notification of any outlier identification and exclusion procedure that will be used, and a demonstration that any such procedure meets generally accepted statistical principles. [The tests must not be conducted until the protocol is approved by the executive director. Upon completion of the tests, the applicant may submit an application for certification to the executive director. The application must include the approved test protocol, all of the test data, a copy of the complete test log prepared in accordance with paragraph (4)(D) of this subsection, a demonstration that the candidate fuel meets the requirements for certification specified in this subsection, and other information as the executive director may reasonably require. Upon review of the certification application, the executive director shall grant or deny the application. Any denial must be accompanied by a written statement of the reasons for denial.]

(2) The applicant shall supply the candidate fuel to be used in the comparative testing in accordance with paragraph (4) of this subsection.

(A) The sulfur content, total aromatic hydrocarbon content, polycyclic aromatic hydrocarbon, nitrogen content, [and] cetane number, API gravity index, viscosity at 40 degrees Celsius, flash point, and distillation (in degrees Fahrenheit) of the candidate fuel must be determined as the average of three tests conducted in accordance with the referenced test method specified in subsection (a) of this section.

(B) For alternative diesel fuel formulations that use an additive in the candidate fuel to achieve reductions, the applicant shall provide to the executive director upon application, the identity, chemical composition, and concentration of each additive used in the formulation and the test method by which the presence and concentration of the additive may be determined. [The identity and concentration of each additive in the candidate fuel must be determined by a test method specified by the applicant and approved by the executive director to adequately determine the presence and concentration of the additive.]

(C) (No change.)

(3) (No change.)

(4) Exhaust emission tests using the candidate fuel and the reference fuel specified in paragraph (3) of this subsection must be conducted in accordance with the federal test procedures as specified in 40 Code of Federal Regulations [CFR] Part 86 (Control of Emissions from New and In-

Use Highway Vehicles and Engines), Subpart N (Emission Regulations for New Otto-Cycle and Diesel Heavy-Duty Engines - Gaseous and Particulate Exhaust Test Procedures), as amended.

(A) The tests must be performed using a Detroit Diesel Corporation Series-60 engine or an engine specified by the applicant and approved by the executive director to be equally representative of the post-1990 model year heavy-duty diesel engine fleet. The test engine must have a minimum of 125 hours of use and exhibit stable operation before beginning the testing specified in this paragraph and must not exceed 110% of its applicable exhaust emission standards when using the reference fuel specified in paragraph (3) of this subsection.

(B) (No change.)

(C) The applicant shall ensure that one of the test sequences in clause (i) or (ii) of this subparagraph is used to conduct the exhaust emissions tests.

(i) If both cold start and hot start exhaust emission tests are conducted, a minimum of five exhaust emission tests, each test consisting of at least one cold start and two hot start cycles, must be performed on the engine with each fuel, using either of the following sequences, where "R" is a test on the reference fuel and "C" is a test on the candidate fuel: RC RC RC (and continuing in the same order) or RC CR RC CR RC (and continuing in the same order). The engine mapping procedures and a conditioning transient cycle must be conducted with the reference fuel

before each cold start procedure using the reference fuel. The reference cycle used for the candidate fuel must be the same cycle as that used for the fuel preceding it.

(ii) If only hot start exhaust emission tests are conducted, one of the following test sequences must be used throughout the testing, where "R" is a test on the reference fuel and "C" is a test on the candidate fuel, each test consisting of at least three hot start cycles:

(I) Alternative 1: RC CR RC CR (continuing in the same order for a given calendar day; a minimum of 20 individual hot start cycles [exhaust emission tests] must be completed with each fuel);

(II) Alternative 2: RR CC RR CC (continuing in the same order for a given calendar day; a minimum of 20 individual hot start cycles [exhaust emission tests] must be completed with each fuel);

(III) Alternative 3: RRR CCC RRR CCC (continuing in the same order for a given calendar day; a minimum of 21 individual hot start cycles [exhaust emission tests] must be completed with each fuel); or

(IV) Alternative 4: RR CCC RR (a minimum of six hot start cycles must be performed on the reference fuel followed with a conditioning period not to exceed 72 hours of engine operation on the candidate fuel before the first individual hot start emission test on the

candidate fuel is performed; the conditioning cycle must represent normal engine operation; a minimum of nine hot start cycles must be performed on the candidate fuel after the conditioning period; only the emissions from the tests on the reference fuel conducted before the candidate fuel tests must be used in the calculations conducted in accordance with paragraph (5) of this subsection; a minimum of six hot start cycles must be performed on the reference fuel after the candidate fuel tests to determine any carry-over effect that may occur from the use of the candidate fuel). [(with a conditioning period not to exceed 72 hours of engine operation on the candidate fuel before the first individual hot start emission test on the candidate fuel is performed; the conditioning cycle must represent normal engine operation); or]

[(V) Alternative 5: a sequence determined to provide equivalent results and approved by the executive director.]

(iii) - (v) (No change.)

(D) - (E) (No change.)

(F) The exhaust emissions tests described in this paragraph must not be conducted until the test protocol as described in paragraph (1) of this subsection is approved by the executive director.

(G) Upon completion of the tests described in this paragraph, the applicant may submit an application for certification to the executive director. The application must include the approved test protocol, all of the fuel analysis and emissions test data, a copy of the complete test log prepared in accordance with subparagraph (D) of this paragraph, a demonstration that the candidate fuel meets the requirements for certification specified in this subsection, and other information as the executive director may reasonably require. Upon review of the certification application, the executive director shall grant or deny the application. Any denial must be accompanied by a written statement of the reasons for denial.

(5) The average emissions during testing with the candidate fuel must be compared to the average emissions during testing with the reference fuel specified in paragraph (3) of this subsection, applying one-sided Student's t statistics as set forth in Snedecar and Cochran, *Statistical Methods* (7th edition), page 91, Iowa State University Press, 1980. The executive director may issue a certification in accordance with this paragraph only if the executive director makes all of the following determinations:

(A) the average individual emissions of NO_x[,THC, NMHC,] and PM, respectively, recorded during testing with the candidate fuel are comparable or better than the average individual emissions of NO_x[,THC, NMHC,] and PM, respectively, recorded during testing with the reference fuel; [and]

(B) (No change.)

(C) in order for the determinations in subparagraph (A) of this paragraph to be made, for each referenced pollutant the candidate fuel must satisfy the following relationship; and [.]

Figure: 30 TAC §114.315(c)(5)(C)

$$\bar{x}_C < \bar{x}_R + S_p \cdot \sqrt{2/n} \cdot t(a, 2n-2)$$

- Where:
- \bar{x}_C = Average emissions during testing with the candidate fuel.
 - \bar{x}_R = Average emissions during testing with the reference fuel.
 - S_p = Pooled standard deviation.
 - $t(a, 2n-2)$ = The one-sided upper percentage point of t distribution with $a = 0.15$ and $2n-2$ degrees of freedom.
 - n = Number of tests of candidate and reference fuel.

(D) the average individual emissions of THC and NMHC, respectively, recorded during testing with the candidate fuel do not exceed the test engine's applicable exhaust emission standards.

(6) If the executive director finds that a candidate fuel has been properly tested in accordance with this subsection, and makes the determinations specified in paragraph (5) of this subsection, then the executive director may, after consultation with the EPA [United States Environmental Protection Agency (EPA)], issue an approval notification certifying that the alternative diesel fuel formulation

represented by the candidate fuel may be used to satisfy the requirements of §114.312(a) of this title.

The approval notification must identify all of the relevant characteristics of the candidate fuel determined in accordance with paragraph (2) of this subsection.

(A) The approval notification must identify the following specifications of the alternative diesel fuel formulation as approved under this subsection [provide that the approved alternative diesel fuel formulation has the following specifications]:

(i) the total aromatic hydrocarbon content, cetane number, or other characteristics as appropriate and as determined in accordance with the test methods identified in subsection (a) of this section; or [a sulfur content, total aromatic hydrocarbon content, polycyclic aromatic hydrocarbon content, and nitrogen content not exceeding that of the candidate fuel;]

(ii) for an alternative diesel fuel formulation using an additive to achieve reductions, the identity and minimum concentration or treatment rate of the additive, the minimum specifications of the base diesel fuel used in the approved formulation, and the test method or methods that must be used to satisfy the monitoring requirements of §114.316 of this title (relating to Monitoring, Recordkeeping, and Reporting Requirements). [a cetane number not less than that of the candidate fuel; and]

[(iii) presence of all additives that were contained in the candidate fuel, in a concentration not less than in the candidate fuel.]

(B) [All such characteristics must be determined in accordance with the test methods identified in subsection (a) of this section.] The approval notification must assign an identification number to the specific approved alternative diesel fuel formulation.

(d) Notwithstanding subsection (c) of this section, the executive director, upon application, may approve alternative diesel fuel formulations as prescribed under §114.312(f) of this title that may be used to satisfy the requirements of §114.312(b) and (c) of this title if the applicant has demonstrated to the satisfaction of the executive director and the EPA that the formulation will achieve comparable or better reductions in emissions of NO_x[,THC, NMHC,] and PM.

(1) (No change.)

(2) If the alternative diesel fuel formulation has been demonstrated to the satisfaction of the executive director to achieve comparable or better reductions in emissions of NO_x[,THC, NMHC,] and PM under this subsection, then the executive director may issue an approval notification certifying that the alternative diesel fuel formulation may be used to satisfy the requirements of §114.312(a) of this title.

(A) The approval notification must identify the following specifications of the alternative diesel fuel formulation as approved under this subsection:

(i) the total aromatic hydrocarbon content, cetane number, or [and] other parameters as appropriate and as determined in accordance with the test methods identified in subsection (a) of this section; or

(ii) for an alternative diesel fuel using an additive to achieve reductions, the identity and [,] minimum concentration or [and] treatment rate of the additive, the minimum specifications of the base fuel used in the approved formulation, and the test method or methods that must be used to satisfy the monitoring requirements of §114.316 of this title [(relating to Monitoring, Recordkeeping, and Reporting Requirements)].

(B) (No change.)

§114.316. Monitoring, Recordkeeping, and Reporting Requirements.

(a) (No change.)

(b) All records relating to low emission diesel (LED) sampling must contain a statement declaring whether the aromatic hydrocarbon content of the sample conforms to the basic standard as specified in §114.312(b) of this title (relating to Low Emission Diesel Standards), to a designated alternative limit (DAL) in accordance with §114.313 of this title (relating to Designated Alternative Limits), to a limit as accepted under §114.312(e) of this title [(relating to Low Emission Diesel

Standards)], or whether the diesel fuel conforms to an alternative diesel fuel formulation approved under §114.312(f) of this title.

(c) - (j) (No change.)

(k) Each producer electing to sell, offer for sale, supply, or offer to supply diesel fuel in accordance with §114.318 of this title (relating to Alternative Emission Reduction Plan) shall comply with the sampling and testing requirements of subsections (d) and (e) of this section for the appropriate fuel components of the diesel upon which the projected emission reductions were based. Each producer shall provide a quarterly report to the executive director no later than the 45th day following the end of the calendar quarter. The quarterly report must provide, at a minimum, the following information:

(1) - (2) (No change.)

(3) the information required to be collected in accordance with the sampling and testing requirements of this subsection and a reconciliation of the quarter's transactions relative to the requirements of this subsection for the appropriate fuel components of the diesel fuel that the projected emission reductions demonstrated in the producer's alternative emission reduction plan were based upon [volume of additive (if any) utilized by the producer to produce diesel fuel that is subject to the provisions of the alternative emission reduction plan as approved by the executive director and the identity of the additive and additive manufacturer].

§114.317. Exemptions to Low Emission Diesel Requirements.

(a) Any diesel fuel that is either in a research, development, or test status; or is sold to petroleum, automobile, engine, or component manufacturers for research, development, or test purposes; or any diesel fuel to be used by, or under the control of, petroleum, additive, automobile, engine, or component manufacturers for research, development, or test purposes, is exempted from the provisions of this division (relating to Low Emission Diesel), provided that:

(1) (No change.)

(2) the diesel fuel is not sold, dispensed, or transferred, or offered for sale, dispensing, or transfer from a retail fuel dispensing facility. It shall also not be sold, dispensed, or transferred, or offered for sale, dispensing, or transfer from a wholesale purchaser-consumer facility, unless such facility is associated with fuel, automotive, or engine research, development, or testing.

(b) (No change.)

(c) The owner or operator of a retail fuel dispensing outlet is exempt from all requirements of §114.316 of this title (relating to Monitoring, Recordkeeping, and Reporting Requirements) except §114.316(g) [§114.316(e)] of this title.

(d) Diesel fuel that does not meet the requirements of §114.312 of this title (relating to Low Emission Diesel Standards) is not prohibited from being transferred, placed, stored, and/or held within the affected counties so long as it is not ultimately used:

(1) to power a diesel fueled compression-ignition engine in a motor vehicle in the counties listed in §114.319 of this title (relating to Affected Counties and Compliance Dates), except for that used in conjunction with purposes stated in subsections (a) and (b) of this section; or

(2) (No change.)

§114.318. Alternative Emission Reduction Plan.

(a) Diesel fuel that is sold, offered for sale, supplied, or offered for supply by a producer who submits an alternative emission reduction plan in accordance with subsection (b) of this section [, that contains a substitute fuel strategy and] that is approved by the executive director [and the United States Environmental Protection Agency (EPA)] will be considered in compliance with the requirements of §114.312(a) of this title (relating to Low Emission Diesel Standards).

(b) An alternative emission reduction plan must demonstrate that the emission reductions associated with compliance of this division (relating to Low Emission Diesel) that are attributable to the volume of diesel fuel that is sold, offered for sale, supplied, or offered for supply by the producer to the affected counties listed under §114.319(b) of this title (relating to Affected Counties and

Compliance Dates) each year will be achieved through an equivalent substitute fuel strategy in accordance with either one or a combination of the following procedures.

(1) A producer shall demonstrate for each specific group of affected counties listed under each paragraph of §114.319(b) of this title, using the Unified Model as described in the United States Environmental Protection Agency (EPA) staff discussion document, *Strategies and Issues in Correlating Diesel Fuel Properties with Emissions*, Publication Number EPA420-P-01-001, published July 2001, and using only the diesel fuel that is sold, offered for sale, supplied, or offered for supply by the producer in the specific counties listed in each group to determine the average fuel properties to be used for the demonstration applicable to each group of affected counties, the following:

(A) the average fuel properties of all on-road diesel fuel produced in any given calendar year that is sold, offered for sale, supplied, or offered for supply by the producer in the applicable group of affected counties achieve at least a 5.5% reduction in oxides of nitrogen (NO_x) emissions for the year 2007; and

(B) the average fuel properties of all non-road diesel produced in any given calendar year that is sold, offered for sale, supplied, or offered for supply by the producer in the applicable group of affected counties achieve at least a 6.2% reduction in NO_x emissions.

(2) A producer shall demonstrate for the counties listed in §114.319(b)(4) of this title, the total number of barrels of noncompliant diesel fuel that may be offset by credits from early gasoline

sulfur reduction using the following methodology or the methodology specified in paragraph (3) of this subsection.

(A) The credits from early gasoline sulfur reduction as determined in subparagraph (C) of this paragraph and paragraph (3)(A) of this subsection will be based on the actual level of sulfur in a producer's gasoline that was below the sulfur levels identified in the EPA's MOBILE6 model as the default refinery average and cap for conventional gasoline in each applicable year and as reported by the producer to EPA in accordance with 40 Code of Federal Regulations (CFR) §80.105 for 2003, and 40 CFR §80.370 for 2004 and 2005.

(B) The credits from early gasoline sulfur reduction can only be generated from the gasoline supplied by the producer in 2003, 2004, and 2005, to the counties listed in §114.319(b)(4) of this title and these credits, as determined in accordance with the offset ratios specified in subparagraph (C) of this paragraph, can only be used in the counties listed in §114.319(b)(4) of this title to demonstrate compliance through December 31, 2010.

(C) The credits from early gasoline sulfur reduction will be determined based on the level of sulfur reduction in each year as specified in the following tables and subject to the corresponding gasoline-to-diesel offset ratios.

(i) Table 1 - 2003 Gasoline-to-Diesel Offset Ratios.

Figure: 30 TAC §114.318(b)(2)(C)(i)

| Sulfur parts per million (ppm) | 25% - 49% Below Federal Baseline | | 50% - 74% Below Federal Baseline | | 75% Below or Just Above Federal Limits | | Federal Model Limits or Lower | |
|---------------------------------------|--|---------|--|---------|--|--------|----------------------------------|-------------|
| | Avg. | Cap | Avg. | Cap | Avg. | Cap | Avg. | Cap |
| | 131-194 | 501-750 | 66-130 | 251-500 | 31-65 | 81-250 | 30 or Lower | 80 or Lower |
| Percent Reduction from MOBILE 6.2 | 2.75% | | 5.71% | | 9.22% | | 11.88% | |
| 2003 Gasoline to Diesel Offset Ratios | 4.12 | | 1.99 | | 1.23 | | 0.96 | |

(ii) Table 2 - 2004 Gasoline-to-Diesel Offset Ratios.

Figure: 30 TAC §114.318(b)(2)(C)(ii)

| Sulfur parts per million (ppm) | 50% Below or Just Above Federal Limits | | Federal Model Limits or Lower | |
|---------------------------------------|---|-------------|----------------------------------|-------------|
| | Avg. | Cap | Avg. | Cap |
| | 31-65 | 80 or lower | 30 or lower | 80 or lower |
| Percent Reduction from MOBILE 6.2 | 4.26% | | 7.21% | |
| 2004 Gasoline to Diesel Offset Ratios | 2.84 | | 1.68 | |

(iii) Table 3 - 2005 Gasoline-to-Diesel Offset Ratio.

Figure: 30 TAC §114.318(b)(2)(C)(iii)

| Sulfur parts per million (ppm) | Federal Model Limits or Lower | |
|--------------------------------------|-------------------------------|-------------|
| | Avg. | Cap |
| | 30 or Lower | 80 or Lower |
| Percent Reduction from MOBILE 6.2 | 6.24% | |
| 2005 Gasoline to Diesel Offset Ratio | 2.07 | |

(D) To determine the number of barrels of noncompliant diesel fuel that may be offset by credits from early gasoline sulfur reduction, the applicable offset ratio must be applied to the actual number of barrels of lower sulfur gasoline supplied by the producer to the counties listed in §114.319(b)(4) of this title annually in 2003, 2004, and 2005.

(3) A producer may demonstrate for the counties listed in §114.319(b)(4) of this title the total number of barrels of noncompliant diesel fuel that may be offset by credits from early gasoline sulfur reduction using the percentage of NO_x emission reductions attributed to on-road diesel for 2007 calculated with the Unified Model as described in paragraph (1) of this subsection, and the average fuel properties of the diesel fuel that is sold, offered for sale, supplied, or offered for supply by the producer in these specific counties, to determine the applicable offset ratio to be applied to the actual number of barrels of lower sulfur gasoline supplied by the producer to the counties listed in §114.319(b)(4) of this title annually in 2003, 2004, and 2005.

(A) To determine the number of barrels of noncompliant diesel fuel that may be offset by credits from early gasoline sulfur reduction, the offset ratio to be applied to the actual number of barrels of lower sulfur gasoline supplied by the producer to the counties listed in §114.319(b)(4) of this title annually in 2003, 2004, and 2005, must be determined in accordance with the following methodology.

Figure: 30 TAC §114.318(b)(3)(A)

$$(450.56*(5.78\%-UM))/(GNEI*M6)=\text{Offset Ratio}$$

Where:

| | | |
|------|---|--|
| UM | = | Percentage of oxides of nitrogen (NO _x) emission reductions attributed to on-road diesel for 2007 as calculated with the Unified Model. |
| GNEI | = | Total NO _x emissions inventory in tons per day attributed to gasoline engines for the counties listed in §114.319(b)(4) of this title as follows: 229.51 tons per day for 2003, 215.37 tons per day for 2004, and 201.24 tons per day for 2005. |
| M6 | = | The appropriate percent reduction from MOBILE 6.2 as specified in the applicable table in paragraph (2)(C) of this subsection. |

(B) The credits from early gasoline sulfur reduction can only be generated from the gasoline supplied by the producer in 2003, 2004, and 2005, to the counties listed in §114.319(b)(4) of this title and these credits, as determined in accordance with the offset ratios as calculated in accordance with subparagraph (A) of this paragraph, can only be used in the counties listed in §114.319(b)(4) of this title for compliance through December 31, 2010.

[(b) In order to be approved, the plan must demonstrate the market share the producer supplies, demonstrate the reductions associated with compliance with this division attributable to the market share, and specify a substitute fuel strategy that will achieve equivalent reductions.]

(c) Producers must submit alternative emission plans in accordance with subsection (b) of this section to the executive director no later than December 31, 2006. [Early reductions may be deemed to be equivalent by the executive director and the EPA.]

(d) (No change.)

(e) The executive director shall approve or disapprove alternative emission reduction plans that have been submitted by producers in accordance with subsection (b) of this section within 45 days of submittal.