

The Texas Commission on Environmental Quality (commission or TCEQ) adopts amendments to §114.318 *without changes* to the proposed text as published in the January 26, 2007, issue of the *Texas Register* (32 TexReg 279). The text of the amendments will not be republished.

The amendments will be submitted to the United States Environmental Protection Agency (EPA) as a revision to the state implementation plan (SIP).

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULE

In April 2000 the commission adopted rules establishing requirements for low emission diesel (LED), and requiring that only LED be sold for on-road and off-road use in the Dallas/Fort Worth (DFW) nonattainment counties as part of that area's ozone attainment demonstration SIP. These new diesel fuel standards were to go into effect May 1, 2002. In December 2000 the commission adopted amendments to the LED rules expanding their coverage to the entire state and made the diesel fuel content limits for sulfur more stringent than federal diesel fuel regulations for on-road vehicles. The commission submitted, as part of that SIP revision, a waiver in accordance with 42 United States Code (USC), §7545(C)(4)(c) for the on-road portion of the rules. The EPA granted the waiver on November 14, 2001 (66 FR 57197), as part of EPA's approval of the SIP revision. Subsequent to this adoption, the 77th Legislature, 2001, passed House Bill (HB) 2912, Article 15, which amended the Texas Clean Air Act (TCAA), §382.039(g) - (i) (subsequently renumbered as §382.202(j), (o), and (p)) to restrict the commission from requiring distribution of LED as described in the revised SIP prior to January 1, 2005, and to allow the commission to consider, as an alternative method of compliance with LED standards,

fuels to achieve equivalent emission reductions. In September 2001 the commission adopted amendments to the LED rules implementing the changes required by HB 2912, Article 15, and included new rules allowing the use of alternative emission reduction plans (AERPs) to demonstrate compliance with the LED control requirements. At the direction of the EPA and in order to reduce nitrogen oxides (NO_x) emissions necessary for the Houston/Galveston/Brazoria (HGB) area to demonstrate attainment with the one hour ozone national ambient air quality standards (NAAQS), these amendments also limited the coverage area of the LED rules from statewide to those counties previously included in the regional air pollution control strategy for the HGB nonattainment area. On March 9, 2005, the commission adopted revisions to the LED rules, extending the initial compliance date for LED from April 1, 2005, to October 1, 2005, and also strengthening registration requirements and improving the rules' enforceability, and submitted them as a SIP revision to the EPA on March 23, 2005. This action was in response to an August 2004 petition by the Texas Petroleum Marketers and Convenience Store Association for rulemaking to extend the compliance date for LED to October 1, 2006, and to June 1, 2007, for the ultra low sulfur requirement. Subsequently, the EPA raised concerns with certain provisions of the revised rules that were problematic in regard to EPA's approval of the rule and SIP revision. Under the LED rules adopted in March 2005, the AERPs were required to be approved by both the executive director and the EPA. The EPA had determined that the commission must submit the AERPs in the form of a SIP revision in order to obtain EPA approval, requiring public review of each AERP. However, many of the diesel fuel producers considered their AERPs to be confidential business information. Furthermore, the commission would also be required to submit a new SIP revision any time a producer amended its AERP. On April 26, 2006, the commission adopted revisions to the LED

rules to address the EPA's issues with the rules adopted in March 2005, including the issues raised by EPA regarding its consideration of AERPs as allowed under §114.318. The April 2006 revisions amended §114.318 to establish a method by which all AERPs could be approved by the executive director and the EPA without a SIP revision and specified that all previously approved AERPs would expire December 31, 2006. Producers wishing to use an AERP for compliance with the LED rules were required to submit an AERP under the new protocol by no later than November 15, 2006, to be approved before December 31, 2006. In February 2006 the executive director also approved an AERP for producers of biodiesel blends allowing them to blend biodiesel with LED compliant diesel fuel in the 110 central and eastern Texas counties affected by the LED regulation until December 31, 2006. The AERP for producers of biodiesel blends was issued to provide the producers of biodiesel blends sufficient time to complete the testing of their biodiesel blended formations that is necessary to be approved by the executive director in accordance with §114.315 as alternative diesel formulations for LED. Under the current LED regulations, only those biodiesel blended formulations that were approved by the executive director as an alternative diesel formulation for LED in accordance with the testing provisions specified under §114.315 could be used for compliance with the LED regulations after the December 31, 2006, expiration date. As of December 8, 2006, the executive director had not yet received testing documentation sufficient to approve a biodiesel blended alternative diesel formulation for compliance with the LED regulations.

The commission adopts in this rulemaking a revision to Chapter 114: Control of Air Pollution from Motor Vehicles, Subchapter H: Low Emission Fuels, Division 2: Low Emission Diesel, §114.318. Specifically, the commission revises §114.318(c) to extend the December 31, 2006, expiration date for all AERPs

approved by the executive director prior to December 16, 2005. The adopted revision extends the expiration date by one year to December 31, 2007, in order to provide producers of biodiesel blends additional time to complete testing necessary to ensure compliance with the LED regulations under Chapter 114, Subchapter H, Division 2.

SECTION DISCUSSION

The adopted change to §114.318(c) amends the expiration date of all AERPs approved by the executive director prior to December 16, 2005, by extending the expiration date by one year from December 31, 2006, to December 31, 2007, and applies this new expiration date to all AERPs approved by the executive director prior to May 17, 2006. The May 17, 2006, date is the effective date of the LED regulations adopted by the commission on April 26, 2006. This adopted change provides producers of biodiesel blends additional time to complete the necessary testing to ensure compliance with the LED regulations. In addition, the adopted change provides diesel producers additional time to finalize AERPs as well. The adopted change to §114.318(c) also removes the exception that allowed a producer operating under an AERP that was attempting to obtain verification under the EPA's Environment Technology Verification Program and EPA's Office of Transportation and Air Quality's Voluntary Diesel Retrofit Program to continue to operate under their AERP for a limited time beyond December 31, 2006. The adopted one year extension provides sufficient time for producers that had met the exception conditions specified under §114.318(c)(1) - (4) to complete the EPA verification process.

FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the adopted amendment to §114.318 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 specific purpose of the adopted amendment to §114.318 is to provide producers of biodiesel blends additional time to complete the necessary testing to ensure compliance with the LED regulations. In addition, the change will provide diesel producers additional time to finalize alternative emission reduction plans as well. The amendment does not specifically protect human health or the environment. Therefore, the amendment to §114.318 does not constitute a major environmental rule, and thus is not subject to a formal regulatory analysis.

In addition, the adopted amendment to 30 TAC Chapter 114, §114.318 is not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225(b), because the adopted rulemaking does 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, this rulemaking action, which is designed to extend the expiration date of approved alternative emission reduction plans, does not exceed an express requirement under state or federal law. Furthermore, there is no contract or delegation agreement that covers the topic that is the subject of this action. 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, 382.017, 382.019, and 382.202. Therefore, the amendment to §114.318 does not exceed a standard set by federal law, exceed an express requirement of state law, exceed a requirement of a delegation agreement, nor is adopted solely under the general powers of the agency.

Based on the foregoing, this adopted rulemaking action is not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225(b).

TAKINGS IMPACT ASSESSMENT

Under Texas Government Code, §2007.002(5), “taking” means a governmental action that affects private real property, in whole or in part or temporarily or permanently, in a manner that requires the governmental entity to compensate the private real property owner as provided by the Fifth and Fourteenth Amendments to the United States Constitution or §17 or §19, Article I, Texas Constitution; or a governmental action that affects an owner's private real property that is the subject of the

governmental action, in whole or in part or temporarily or permanently, in a manner that restricts or limits the owner's right to the property that would otherwise exist in the absence of the governmental action; and is the producing cause of a reduction of at least 25% in the market value of the affected private real property, determined by comparing the market value of the property as if the governmental action is not in effect and the market value of the property determined as if the governmental action is in effect.

The commission completed a takings impact assessment for the adopted rulemaking action under Texas Government Code, §2007.043. The specific purpose of this revision is to extend the December 31, 2006, expiration date for all AERPs approved by the executive director before May 17, 2006, by one year to December 31, 2007, to allow producers of biodiesel blends additional time to complete the necessary testing to ensure compliance with LED regulations and thus help bring the State's nonattainment areas into compliance with the air quality standards established under federal law as NAAQS for ozone. The adopted amendment does not place a burden on private, real property in a manner that would require compensation to private real property owners under the United States Constitution or the Texas Constitution. The adoption also does not affect private real property in a manner that restricts or limits an owner's right to the property that would otherwise exist in the absence of the governmental action. Therefore, the adopted amendment does not cause a taking under Texas Government Code, Chapter 2007.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission has determined the adopted 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 has determined that the adopted amendment is 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 adopted rulemaking ensures that the amendment complies with 40 Code of Federal Regulations (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).

PUBLIC COMMENT

Public hearings were held on the proposed rules on February 15, 2007, in Arlington; on February 20, 2007, in Houston; and on February 22, 2007, in Austin. The comment period closed on March 2, 2007. The commission received comments from City of Dallas (Dallas), Earth Biofuels, Green Earth Fuels on behalf of the Biodiesel Coalition of Texas (BCOT), Good Company Associates on behalf of the National Biodiesel Board, National Biodiesel Board (NBB), Organic Fuels, Superneighborhood #22 Transportation

Task Force (Superneighborhood #22), United States Environmental Protection Agency Region 6 (EPA), and three individuals.

RESPONSE TO COMMENTS

Earth Biofuels, BCOT, EPA, Good Company Associates, Organic Fuels, and NBB generally supported the adoption of the amendment as proposed. Dallas and two individuals generally opposed adoption of the amendment.

Earth Biofuels, BCOT, Good Company Associates, Organic Fuels, and NBB requested the commission to extend the expiration date until the EPA completes its Collaborative Biodiesel Test (CBT) program, communicate the results of the testing to states, and issues guidance based on the results. Good Company Associates commented that EPA estimates that it could take 18 to 24 months to complete the testing and come to a final conclusion that they will use to advise states. NBB commented that EPA has already informed CBT program participants that the study will take 18 months to complete. Dallas commented that the biodiesel industry should be expediting the testing and approval of alternative diesel formulations and that the continued delays and extensions on a final resolution on the use of biodiesel in Texas prolong decisions on Dallas' clean air purchasing strategies. Dallas further commented that the biodiesel industry should have resolved this issue within the timeframe specified by the commission in earlier rulemaking.

The commission will consider the final results of the EPA's CBT program when it is completed.

However, the commission does not believe it is appropriate to extend the AERP expiration date beyond December 31, 2007, since some of the counties included in the LED coverage area must demonstrate attainment with eight-hour national ambient air quality standards for ozone by December 31, 2007. The commission has approved an alternative diesel fuel formulation for a biodiesel blend that can be used by producers and importers of biodiesel blends for compliance with the LED rules. Producers using the approved biodiesel blend formulation are no longer limited by the provisions of the AERP for producers of biodiesel blends and may produce this fuel for use in any Texas county affected by the LED rules. The commission also believes that further testing as specified under §114.315(c) or (d) of the LED rules on other biodiesel blend formulations with or without additional additives may result in the approval of additional biodiesel blended alternative diesel formulations for LED before the AERP for producers of biodiesel blends expires on December 31, 2007. The commission made no changes to the rules in response to these comments.

Dallas commented that the provision in the TxLED rule that allows producers to meet the standard through an emission reduction plan is a concern because it allows producers to sell diesel that does not reduce nitrogen oxide. Dallas further commented that its position is that credits should not be used to attain compliance but that true NO_x reduction should be the goal.

The commenter is requesting an action that is beyond the scope of this rulemaking, as comments on other subsections of §114.318, including those relating to the use of credits to attain compliance with the TxLED regulations, were specifically not requested in the proposed rules that were published in

the January 26, 2007, issue of the *Texas Register* (32 TexReg 279). The commission is required under the provisions of HB 2912, Article 15, (77th Legislature, 2001) to consider alternative methods of compliance with the TxLED standards to achieve equivalent emission reductions. The commission made no changes to the rules in response to these comments.

Organic Fuels commented that additive costs of an additional \$0.02 to \$0.05 per gallon for a B20 (20% biodiesel) compliance scenario are not viable from a market standpoint. Organic Fuels further commented that an additive-based strategy is simply not a viable one for a fuel that's attempting to compete in a pretty stilted market. Dallas acknowledged the recent approval of an additive based alternative diesel formulation for biodiesel blends and stated that Dallas will begin purchasing this product in the next few weeks, trusting that biodiesel containing this additive will not cause or contribute to the ozone problem in the DFW area.

The commission believes that the market will determine the most economical way of complying with the LED requirements. If an additive's cost or supply is at issue, producers and importers affected by the LED requirements have other compliance options. In addition, further testing of biodiesel blend formulations with or without additional additives may result in the approval of biodiesel blended alternative diesel formulations for LED that have little or no additional cost per gallon of the biodiesel blended fuel. The commission made no changes to the rules in response to these comments.

Superneighborhood #22 commented that the proposed revisions to the State Implementation Plan

under 2006-030-SIP-NR relating to the Houston-Galveston-Brazoria (HGB) Reasonable Further Progress (RFP) SIP Revision were not entirely about the need for more time to clean the air, but in reality about upcoming highway expansion and development projects being placed in jeopardy by the region's impending loss of future federal funds for those projects. Superneighborhood #22 further commented that the reward for failure should not be granting the responsible agencies additional time to comply with federal standards while allowing the populace to continue suffering detrimental effects to health and quality of life. Superneighborhood #22 stated that the commission should act responsibly to require the full evaluation of, and be actively in support of, alternative options such as the twin-tunnel IH 45 proposal that could significantly improve the Houston region's air quality.

The commenter is requesting an action that is beyond the scope of this rulemaking, as changes relating to the Houston-Galveston-Brazoria (HGB) Reasonable Further Progress (RFP) SIP Revision were not addressed in the proposed rules that were published in the January 26, 2007, issue of the *Texas Register* (32 TexReg 279). These comments will be addressed in the response to comments for SIP Revision Project Number 2006-030-SIP-NR. The commission made no changes to the rules in response to these comments.

One individual commented that lawmakers should be accountable to their constituents rather than the big industries who contribute so heavily to their campaigns and that until meaningful campaign reform laws are enacted, our government would continue to cater to those big businesses that put them into office.

The commenter is requesting an action that is beyond the scope of this rulemaking, as changes to campaign reform laws were not addressed in the proposed rules that were published in the January 26, 2007, issue of the *Texas Register* (32 TexReg 279). The commission made no changes to the rules in response to these comments.

One individual commented that all of the oil companies and petrochemical companies have been very profitable recently and yet they say they can't afford to upgrade the production equipment to reduce pollution, and instead of requiring these corporate neighbors to be responsible for their own byproducts, they are given tax breaks and passes on cleaning up their messes. The individual further commented that "this dance we have been doing with industry has to come to an end" and that "the polluting companies should be held to the same standards" as any individual that would be fined for dumping garbage into the air or water.

The commission is required under the provisions of HB 2912, Article 15, (77th Legislature, 2001) to consider alternative methods of compliance with the LED standards to achieve equivalent emission reductions. The extension of the expiration date by one year to December 31, 2007, only provides producers of biodiesel blends additional time to complete testing necessary to ensure compliance with the LED regulations, it does not exempt these producers from the same requirements that producers and importers of petroleum diesel fuel must also meet. The commission made no changes to the rules in response to these comments.

The EPA commented that it does not oppose the removal of the exception in §114.318(c) regarding producers that had begun the verification process. The EPA also stated that in order for EPA to approve this amendment as part of the SIP, the commission will need to provide documentation that the extension is consistent with attainment of the national air quality standards and other requirements of the Clean Air Act and the Texas SIP.

The commission appreciates the support for this removal. The commission's emissions modeling of the benefits from the LED rules assumes that approximately 2.9 billion gallons of on-road and non-road diesel fuel per year is used in the 110-county area affected by the LED rules. Based on information provided by the Texas Department of Agriculture's Fuel Ethanol and Biodiesel Production Incentive Program, the commission estimates that the current biodiesel production in Texas is approximately 55 million gallons of neat biodiesel, known as B100 (i.e., 100% biodiesel), per year. Therefore, based on the estimated current annual B100 production in Texas, the commission estimates that the maximum current potential market share for B20 biodiesel/diesel fuel blends from Texas producers may only be approximately 9% of the 110-county on-road and non-road LED market. Assuming a 2% increase in NO_x emissions using a B20 blend of biodiesel with LED as compared to unblended LED, the commission estimates that the maximum adverse impact would only be a 5% reduction in the total number of tons of NO_x emissions reduced per day under the LED rules. This impact on emissions will only occur for the one year length of the extension.

Therefore, the commission believes that the extension of the AERP expiration date to December 31,

2007, is consistent with attainment of the national air quality standards and other requirements of the Clean Air Act and the Texas SIP because the analysis of the current production of biodiesel in Texas indicates that the amount of biodiesel currently available for blending with LED for use in the nonattainment areas and the other affected counties is not significant and will not have a significant impact on the NO_x emission reductions attributed to the LED rules in these areas.

SUBCHAPTER H: LOW EMISSION FUELS

DIVISION 2: LOW EMISSION DIESEL

§114.318

STATUTORY AUTHORITY

The amendment is adopted 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 adopted 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; and §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 LED as described in the SIP is not required prior to February 1, 2005.

The adopted 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, and 382.202.

§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 is approved by the executive director 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 calendar years 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 applicable gasoline-to-diesel offset ratios calculated under subparagraph (D) 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 using the following methodologies and subject to the applicable gasoline-to-diesel offset ratios determined using the methodology specified under subparagraph (D) of this paragraph.

(i) Methodology 1 - valid only for 2003 gasoline sulfur values between 259 parts per million (ppm) and 30 ppm.

Figure: 30 TAC §114.318(b)(2)(C)(i)

$$M6 = (0.0000007 \cdot X2) - (0.0007 \cdot X) + (0.137)$$

Where:

M6 = The percent reduction in oxides of nitrogen (NO_x) emission reductions as determined using factors calculated by MOBILE6.2.

X = The gasoline sulfur level in 2003 in parts per million (ppm).

(ii) Methodology 2 - valid only for 2004 gasoline sulfur values between 121 ppm and 30 ppm.

Figure: 30 TAC §114.318(b)(2)(C)(ii)

$$M6 = (0.000003 \cdot X2) - (0.0012 \cdot X) + (0.1042)$$

Where:

M6 = The percent reduction in oxides of nitrogen (NO_x) emission reductions as determined using factors calculated by MOBILE6.2.

X = The gasoline sulfur level in 2004 in parts per million (ppm).

(iii) Methodology 3 - valid only for 2005 gasoline sulfur values between 92 ppm and 30 ppm.

Figure: 30 TAC §114.318(b)(2)(C)(iii)

$$M6 = (0.000005 \cdot X^2) - (0.0016 \cdot X) + (0.1046)$$

Where:

M6 = The percent reduction in oxides of nitrogen (NO_x) emission reductions as determined using factors calculated by MOBILE6.2.

X = The gasoline sulfur level in 2005 in parts per million (ppm).

(D) To determine the number of barrels of noncompliant diesel fuel that may be offset by credits from early gasoline sulfur reduction, 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 divided by the gasoline-to-diesel offset ratio determined in accordance with the following methodology.

Figure: 30 TAC §114.318(b)(2)(D)

$$(450.56 \cdot (5.78\%))/(GNEI \cdot M6) = \text{Gasoline-to-Diesel Offset Ratio}$$

Where:

GNEI = Total oxides of nitrogen (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 as determined using the applicable methodology specified under subparagraph (C) of this paragraph.

(3) 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 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 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 divided by the gasoline-to-diesel offset ratio determined in accordance with the following methodology.

Figure: 30 TAC §114.318(b)(3)(A)

$$(450.56 \cdot (5.78\% - UM)) / (GNEI \cdot M6) = \text{Gasoline-to-Diesel Offset Ratio}$$

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 as determined using the applicable methodology specified under 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 calendar years 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 applicable gasoline-to-diesel 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.

(4) A producer shall demonstrate for the counties listed in §114.319(b)(1) or (2) of this title, respectively, the total number of barrels of noncompliant diesel fuel that may be offset by credits from the residual effects of early gasoline sulfur reduction on the NO_x emission reduction efficiencies of catalytic converters installed in gasoline-powered motor vehicles by using the following methodology.

(A) The credits from the residual effect of early gasoline sulfur reduction may only be generated by the volume of reformulated gasoline supplied by the producer in 2004 and 2005 to the counties listed in §114.319(b)(1) or (2) of this title, that had an average sulfur level reported by the producer to EPA in accordance with 40 CFR §80.370 that was below the sulfur level of 92 ppm in 2004, and 77 ppm in 2005.

(B) The number of barrels of noncompliant diesel fuel that may be offset by credits from the residual effects of early gasoline sulfur reduction will be determined by dividing the actual number of barrels of lower sulfur gasoline determined to be eligible to generate credit in accordance with subparagraph (A) of this paragraph by the following gasoline-to-diesel offset ratio as

applicable.

(i) The gasoline-to-diesel offset ratio for eligible lower sulfur gasoline supplied to the counties listed in §114.319(b)(1) of this title will be 32.0 for calendar years 2006 through 2008.

(ii) The gasoline-to-diesel offset ratio for eligible lower sulfur gasoline supplied to the counties listed in §114.319(b)(2) of this title will be 66.0 for calendar years 2006 through 2008.

(C) The credits from the residual effects of early gasoline sulfur reduction as determined in accordance with subparagraph (B)(i) or (ii) of this paragraph can only be used in the counties listed in §114.319(b)(1) or (2) of this title, respectively, for compliance through December 31, 2008.

(c) All alternative emission reduction plans approved by the executive director prior to May 17, 2006, will expire on December 31, 2007.

(d) An alternative emission reduction plan must be approved by the executive director prior to the use of that plan for compliance with the requirements of this section.

(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.

(f) Alternative emission reduction plans submitted to the executive director in accordance with subsection (b) of this section must contain sufficient documentation to validate the average diesel fuel properties used in accordance with subsection (b)(1) or (2) of this section and, as appropriate, the sulfur properties and volumes of the gasoline that is being used to generate credit in accordance with subsection (b)(3) or (4) of this section.