

**SUBCHAPTER H: LOW EMISSION FUELS**  
**DIVISION 1: GASOLINE VOLATILITY**  
**§§114.301, 114.304 - 114.307, 114.309**  
**Effective October 4, 2001**

**§114.301. Control Requirements for Reid Vapor Pressure.**

(a) In the counties listed in §114.309 of this title (relating to Affected Counties), no person shall sell, offer for sale, supply, offer for supply, dispense, transfer, allow the transfer, place, store, or hold in any stationary tank, reservoir, or other container any gasoline with a Reid vapor pressure greater than 7.8 pounds per square inch, on a per gallon basis, which may ultimately be used to power a gasoline engine in the affected counties according to the schedule in subsection (b) of this section.

(b) Beginning May 1, 2000, all adjustments in the operation of affected facilities and all transfers or alterations of gasoline not meeting the requirements of this section must be completed as necessary to conform with the provisions of subsection (a) of this section during the following periods of each calendar year:

- (1) June 1 through October 1 of each year for gasoline dispensing facilities; and
- (2) May 1 through October 1 of each year for all other affected facilities.

(c) No producer shall increase the use of methyl-tertiary-butyl-ether in gasoline on an average per gallon basis during the period of May 1 through October 1 of any calendar year over that used in the period May 1 through October 1, 1998 to conform with subsection (a) of this section.

Adopted April 5, 2000

Effective April 27, 2000

**§114.304. Registration of Gasoline Producers and Importers.**

Each producer and importer that, as of May 1, 2000, sells, offers for sale, supplies, or offers for supply from its production facility or import facility gasoline to counties listed in §114.309 of this title (relating to Affected Counties) shall register with the executive director, or his designated representative, by July 1, 2000. Beginning July 1, 2000, gasoline producers and importers that are not supplying gasoline to the affected counties as of May 1, 2000, shall register within 30 days after the first date that such person will produce or import gasoline intended to be sold, offered for sale, supplied, or offered for supply from its production or import facility to counties listed in §114.309 of this title. Registration shall be on forms prescribed by the executive director, or his designated representative, and shall include a statement of acceptance of the standards and enforcement provisions of this division; and shall include a statement of consent by the registrant that the executive director, or his designated representative, shall be permitted access to documentation and records. The executive director, or his designated representative, shall maintain a listing of all registered producers and importers.

Adopted April 5, 2000

Effective April 27, 2000

**§114.305. Approved Test Methods.**

(a) Compliance with the Reid vapor pressure (RVP) limitations of §114.301 of this title (relating to Control Requirements for Reid Vapor Pressure) shall be determined by the American Society for Testing and Materials (ASTM) Test Method D5191-99 (Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method)) for the measurement of RVP using the following correlation correction equation to calculate RVP equivalent to that determined by test methods prescribed in Title 40 Code of Federal Regulations Part 80, Appendix E, Method 3, dated March 17, 1993.

$$RVPE = 0.956(x) - 0.347;$$

where:

RVPE = equivalent RVP with units in pounds per square inch (psi)

x = measured total vapor pressure in psi

(b) Minor modifications to these test methods may be used, if approved by the executive director.

(c) Test methods other than those specified in subsection (a) of this section, may be used if validated by 40 CFR 63, Appendix A, Test Method 301 (effective December 29, 1992). For the purposes of this subsection, substitute "executive director" each place that Test Method 301 references "administrator."

Adopted April 5, 2000

Effective April 27, 2000

**§114.306. Recordkeeping, Reporting, and Certification Requirements.**

(a) The owner or operator of any gasoline storage vessel, gasoline terminal, or gasoline bulk plant subject to the provisions of §114.301 of this title (relating to Control Requirements for Reid Vapor Pressure) shall maintain records of the Reid vapor pressure of all gasoline stored or transferred during the compliance period. All records shall be maintained for two years and be made available for review by the executive director, EPA, and local air pollution control agencies. Records do not have to be stored on-site, but must be made available for inspection at the site within five business days.

(b) All parties in the distribution chain (producers, importers, terminals, pipelines, truckers, rail carriers, and retail fuel dispensing outlets) subject to the provisions of §114.301 of this title must maintain copies or records of product transfer documents for a minimum of two years and shall upon request, make such copies or records available to representatives of the commission, EPA, or local air pollution agency having jurisdiction in the area. The product transfer documents must contain, at a minimum, the following information:

(1) the date of transfer;

- (2) the name and address of the transferor;
- (3) the name and address of the transferee;
- (4) in the case of transferors or transferees who are producers or importers, the registration number of those persons as assigned by the commission under §114.304 of this title (relating to Registration of Gasoline Producers and Importers);
- (5) the volume of gasoline being transferred;
- (6) the location of the gasoline at the time of transfer; and
- (7) the following certification statement: "This product complies with the requirements for Reid vapor pressure specified in Title 30 Texas Administrative Code, §114.301 and may be used in any Texas county requiring gasoline with a maximum RVP of 7.8 pounds per square inch."

(c) Each producer and importer subject to the provisions of §114.301 of this title shall submit to the executive director, or his designated representative, by November 30 of each year, a report which includes a quantification of the total gallons of gasoline and the total gallons of MTBE contained in gasoline for which the transfer documents contain the statement in subsection (b)(7) of this section during the periods May 1 through October 1 of 1998 and May 1 through October 1 of the current calendar year. The certifying report shall attest that all information contained in the report is true and accurate and is based on knowledge of the certifying official. The report must also include either:

(1) a certification statement that the use of MTBE in gasoline for which the transfer documents contain the statement in subsection (b)(7) of this section during the period May 1 through October 1 of the current calendar year has not increased on an average per gallon basis over that in the period May 1 through October 1, 1998; or

(2) if the average per gallon use of MTBE during the period May 1 through October 1 of the current calendar year exceeds the average per gallon use of MTBE during the period May 1 through October 1, 1998, documentation and explanation of the basis for the increased use in a manner sufficient to demonstrate that the producer or importer did not increase the use of MTBE during the period covered by the certification to conform with §114.301(a) of this title.

Adopted April 5, 2000

Effective April 27, 2000

**§114.307. Exemptions.**

(a) The following uses are exempt from §§114.301, 114.305, and 114.306 of this title (relating to Control Requirements for Reid Vapor Pressure; Approved Test Methods; and Recordkeeping, Reporting, and Certification Requirements):

- (1) any stationary tank, reservoir, or other container:

(A) used exclusively for the fueling of implements of agriculture; or

(B) with a nominal capacity of 500 gallons (1,893 liters) or less; and

(2) all gasoline solely intended for use as aviation gasoline ("av-gas").

(b) Any gasoline 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 gasoline to be used by, or under the control of petroleum, additive, automobile, engine, component manufacturers for research, development, or test purposes; or any independent research laboratories or academic institutions for use in research, development, or testing of petroleum, additive, automobile, engine, component products, is exempt from the provisions of this division (relating to Gasoline Volatility), provided that:

(1) the gasoline is kept segregated from non-exempt product, and the person possessing the product maintains documentation identifying the product as research, development, or testing fuel, as applicable, and stating that it is to be used only for research, development, or testing purposes; and

(2) the gasoline 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.

(c) Any gasoline that is refined, sold, dispensed, transferred, or offered for sale, dispensing, or transfer as competition racing fuel is exempted from the provisions of this division, provided that:

(1) the fuel is kept segregated from non-exempt fuel, and the party possessing the fuel for the purposes of refining, selling, dispensing, transferring, or offering for sale, dispensing, or transfer as competition racing fuel maintains documentation identifying the product as racing fuel, restricted for non-highway use in competition racing motor vehicles or engines;

(2) each pump stand at a regulated facility, from which the fuel is dispensed, is labeled with the applicable fuel identification and use restrictions described in paragraph (1) of this subsection; and

(3) the fuel is not sold, dispensed, transferred, or offered for sale, dispensing, or transfer for highway use in a motor vehicle.

(d) The owner or operator of a retail fuel dispensing outlet is exempt from all requirements of §114.306 of this title, except §114.306(b) of this title.

(e) Gasoline that does not meet the requirements of §114.301 of this title is not prohibited from being transferred, placed, stored, and/or held within the affected counties so long as it is not ultimately used to power:

(1) a gasoline-powered spark-ignition engine in a motor vehicle in the counties listed in §114.309 of this title (relating to Affected Counties), except for that used in conjunction with purposes stated in subsections (a) - (c) of this section; or

(2) a gasoline-powered spark-ignition engine in non-road equipment in the counties listed in §114.309 of this title, except for that used in conjunction with purposes stated in subsections (a) - (c) of this section.

Adopted September 12, 2001

Effective October 4, 2001

**§114.309. Affected Counties.**

All affected persons in the following counties shall be in compliance with §§114.301 and 114.304 - 114.307 of this title (relating to Control Requirements for Reid Vapor Pressure; Registration of Gasoline Producers and Importers; Approved Test Methods; Recordkeeping, Reporting, and Certification Requirements; and Exemptions) no later than the dates specified in §114.301(b) of this title: Anderson, Angelina, Aransas, Atascosa, Austin, Bastrop, Bee, Bell, Bexar, Bosque, Bowie, Brazos, Burleson, Caldwell, Calhoun, Camp, Cass, Cherokee, Colorado, Comal, Cooke, Coryell, De Witt, Delta, Ellis, Falls, Fannin, Fayette, Franklin, Freestone, Goliad, Gonzales, Grayson, Gregg, Grimes, Guadalupe, Harrison, Hays, Henderson, Hill, Hood, Hopkins, Houston, Hunt, Jackson, Jasper, Johnson, Karnes, Kaufman, Lamar, Lavaca, Lee, Leon, Limestone, Live Oak, Madison, Marion, Matagorda, McLennan, Milam, Morris, Nacogdoches, Navarro, Newton, Nueces, Panola, Parker, Polk, Rains, Red River, Refugio, Robertson, Rockwall, Rusk, Sabine, San Jacinto, San Patricio, San Augustine, Shelby, Smith, Somervell, Titus, Travis, Trinity, Tyler, Upshur, Van Zandt, Victoria, Walker, Washington, Wharton, Williamson, Wilson, Wise, and Wood.

Adopted September 12, 2001

Effective October 4, 2001

**DIVISION 2: LOW EMISSION DIESEL**  
**§§114.312 - 114.319**  
**Effective June 14, 2007**

**§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) The maximum aromatic hydrocarbon content of LED is 10% by volume per gallon; or the LED has been reported in accordance with all of the requirements of §114.313 of this title (relating to Designated Alternative Limits), where:

(1) the aromatic hydrocarbon content does not exceed the designated alternative limit (DAL); and

(2) the DAL exceeds 10% by volume, the excess aromatic hydrocarbon content is fully offset in accordance with §114.313 of this title.

(c) The minimum cetane number for LED is 48.

(d) Subsection (a) of this section does not apply to a sale, offer for sale, or supply of diesel fuel to a producer where the producer further processes the diesel fuel at the producer's production facility prior to any subsequent sale, offer for sale, or supply of the diesel fuel.

(e) Diesel fuel that has been produced to comply with all specifications for a Certified Diesel Fuel Formulation as approved by an executive order by the California Air Resources Board on or before January 18, 2005, for compliance with California diesel fuel regulations that were in effect as of October 1, 1993, except for those approved for small refinery compliance, or diesel fuel that has been produced to meet all specifications for diesel fuel under regulations adopted by the California Air Resources Board, except for those approved for small refinery compliance, that were in effect as of January 18, 2005, may be used to satisfy the requirements of subsection (a) of this section.

(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 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.

Adopted April 26, 2006

Effective May 17, 2006

**§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) of this title (relating to Low Emission Diesel Standards), if the following conditions are met.

(1) In no case may the aromatic hydrocarbon content of the final blend shown by the sample and test conducted in accordance with §114.315 of this title (relating to Approved Test Methods) exceed the assigned DAL.

(2) The producer or importer shall notify the executive director of the volume (in barrels) and the DAL of the final blend. This notification must 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 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) 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) 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) 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) 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) Whenever the final blend of a producer or importer includes volumes of diesel fuel the producer or importer has produced or imported, and volumes it has not produced or imported, the producer's or importer's DAL shall apply only to the volume of diesel fuel the producer or importer has produced or imported. In such a case, the producer or importer shall report to the executive director in accordance with subsection (a)(2) of this section, both the volume of diesel fuel produced or imported and the total volume of the final blend.

Adopted April 26, 2006

Effective May 17, 2006

**§114.314. Registration of Diesel Producers and Importers.**

(a) Each producer and importer that sold, offered for sale, supplied, or offered for supply diesel fuel from its production facility or import facility that may have been used in counties listed in §114.319 of this title (relating to Affected Counties and Compliance Dates) on or before April 1, 2005, shall register with the executive director by May 1, 2005.

(b) Each producer or importer that did not begin to sell, offer for sale, supply, or offer to supply diesel fuel from its production facility or import facility that may ultimately be used in counties listed in §114.319 of this title until after April 1, 2005, shall register with the executive director at least 30 days prior to the first date the diesel fuel is to be made available for use in the listed counties.

(c) Registration must be submitted on forms prescribed by the executive director and must include, at a minimum:

(1) a signed statement indicating whether the producer or importer does or does not intend to produce or import low emission diesel for use in the counties listed in §114.319 of this title on or after October 1, 2005;

(2) a statement of the total number of barrels of diesel fuel produced or imported in the 12 months prior to the date of registration that the producer or importer sold, offered for sale, supplied, or offered for supply from its production facility or import facility that was intended for use in the counties listed in §114.319 of this title;

(3) if appropriate, a statement of the estimated total number of barrels of low emission diesel that the producer or importer is planning to produce or import in the 12 months following the compliance date listed in §114.319(c)(1) of this title that the producer or importer intends to sell, offer for sale, supply, or offer to supply from its production facility or import facility for use in the counties listed in §114.319 of this title;

(4) if appropriate, a statement of the estimated total number of barrels of diesel fuel that the producer or importer is planning to produce or import under an alternative emission reduction plan under §114.318 of this title (relating to Alternative Emission Reduction Plan) in the 12 months following the compliance date listed in §114.319(c)(1) of this title that the producer or importer intends to sell, offer for sale, supply, or offer to supply from its production facility or import facility for use in the counties listed in §114.319 of this title;

(5) any other information determined by the executive director to be necessary to determine the adequacy of diesel supply in the affected counties; and

(6) a signed statement of consent by the registrant that the executive director is permitted to collect samples and access documentation and records.

- (d) The executive director shall maintain a listing of all registered producers and importers.

Adopted March 9, 2005

Effective March 31, 2005

**§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 =  $0.916 \times (\text{aromatic hydrocarbons expressed in percent by weight}) + 1.33$ .

(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) The nitrogen content may be determined by the active version of ASTM Test Method D4629 (Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection).

(4) The American Petroleum Institute (API) gravity index may be determined by the active version of ASTM Test Method D287 (Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method)).

(5) The viscosity may be determined by the active version of ASTM Test Method D445 (Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (the Calculation of Dynamic Viscosity)).

(6) The flashpoint may be determined by the active version of ASTM Test Method D93 (Standard Test Methods for Flash-Point by Pesky-Martens Closed Cup Tester).

(7) The distillation temperatures may be determined by the active version of ASTM Test Method D86 (Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure).

(b) Modifications to the testing methods and procedures in this section may be approved by the executive director after consultation with and agreement by 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) the identity of the entity that will conduct the tests described in paragraph (4) of this subsection;

(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 Grade No. 2-D S15 diesel fuel as specified in the active version of ASTM D975, 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.

(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, 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.

(C) The applicant may also specify any other parameters for the candidate fuel, along with the test method for determining the parameters. The applicant shall provide the chemical composition of each additive in the candidate fuel, except when the chemical composition of an additive is not known to either the applicant or to the manufacturer of the additive (if other), the applicant may provide a full disclosure of the chemical process of manufacture of the additive in lieu of its chemical composition.

(3) The reference fuel used in the comparative testing described in paragraph (4) of this subsection must be produced from straight-run diesel fuel by a hydrodearomatization process and must have the following characteristics determined in accordance with the referenced test method specified in subsection (a) of this section:

- (A) sulfur content - 15 parts per million maximum;
- (B) total aromatic hydrocarbon content - 10% maximum, volume percent;
- (C) polycyclic aromatic hydrocarbon content - 1.4%, maximum weight percent;
- (D) nitrogen content - ten parts per million, maximum;
- (E) cetane number - 48, minimum;
- (F) API gravity index - 33 to 39 degrees;
- (G) viscosity at 40 degrees Celsius - 2.0 to 4.1 centistokes;
- (H) flash point - 130 degrees Fahrenheit, minimum; and
- (I) distillation:
  - (i) initial boiling point - 340 to 420 degrees Fahrenheit;
  - (ii) 10% point - 400 to 490 degrees Fahrenheit;
  - (iii) 50% point - 470 to 560 degrees Fahrenheit;
  - (iv) 90% point - 550 to 610 degrees Fahrenheit; and
  - (v) end point - 580 to 660 degrees Fahrenheit.

(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 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) The comparative testing must be conducted by a third party that is mutually agreed upon by the executive director and the applicant. The applicant shall be responsible for all costs of the comparative testing.

(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 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 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 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).

(iii) For alternatives 1, 2, and 3, an equal number of tests must be conducted using the reference fuel and the candidate fuel on any given calendar day. At the beginning of each calendar day, the sequence of testing must begin with the fuel that was tested at the end of the preceding day.

(iv) For all alternatives, the engine mapping procedures and a conditioning transient cycle must be conducted after every fuel change and/or at the beginning of each day. The reference cycle generated from the reference fuel for the first test must be used for all subsequent tests.

(v) Each paired or triplicate series of individual tests must be averaged to obtain a single value that would be used in the calculations conducted in accordance with paragraph (5) of this subsection.

(D) The applicant shall submit a test schedule to the executive director at least one week prior to commencement of the tests. The test schedule must identify the days that the tests will be conducted, and must provide for conducting the test consecutively without substantial interruptions other than those resulting from the normal hours of operations at the test facility. The executive director or his designee shall be permitted to observe any tests. The party conducting the testing shall maintain a test log that identifies all tests conducted, all engine mapping procedures, all physical modifications to or operational tests of the engine, all re-calibrations or other changes to the test instruments, and all interruptions between tests and the reason for each such interruption. All tests conducted in accordance with the test schedule, other than any tests rejected in accordance with an outlier identification and exclusion procedure included in the approved test protocol, must be included in the comparison of emissions in accordance with paragraph (5) of this subsection.

(E) In each test of a fuel, exhaust emissions of oxides of nitrogen (NO<sub>x</sub>), total hydrocarbons (THC), non-methane hydrocarbons (NMHC), and particulate matter (PM) must be measured.

(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<sub>x</sub> and PM, respectively, recorded during testing with the candidate fuel are comparable or better than the average individual emissions of NO<sub>x</sub> and PM, respectively, recorded during testing with the reference fuel;

(B) use of any additive identified in accordance with paragraph (2)(B) of this subsection in diesel powered engines will not increase emissions of noxious or toxic substances that would not be emitted by such engines operating without the additive;

(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

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

Where:

- $\bar{x}_C$  = Average emissions during testing with the candidate fuel.
- $\bar{x}_R$  = Average emissions during testing with the reference fuel.
- $\delta$  = Tolerance level equal to 1% of  $\bar{x}_R$  for oxides of nitrogen (NO<sub>x</sub>), and 2% of  $\bar{x}_R$  for particulate matter (PM).
- $S_p$  = 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, 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:

(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

(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).

(B) 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<sub>x</sub> and PM.

(1) For alternative diesel fuel formulations that use an additive 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.

(2) If the alternative diesel fuel formulation has been demonstrated to the satisfaction of the executive director and the EPA to achieve comparable or better reductions in emissions of NO<sub>x</sub> 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 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 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.

(B) The approval notification must assign an identification number to the specific approved alternative diesel fuel formulation.

(3) The demonstration required under this subsection may be satisfied using the Unified Model as described in the EPA staff discussion document, *Strategies and Issues in Correlating Diesel Fuel Properties with Emissions*, Publication Number EPA420-P-01-001, published July 2001, to demonstrate that the applicable fuel properties of the alternative diesel fuel formulation will achieve at least a 5.5% reduction in NO<sub>x</sub> emissions from on-road diesel fuel for the year 2007, and at least a 6.2% reduction in NO<sub>x</sub> emissions from non-road diesel.

(4) The demonstration required under this subsection may be satisfied by the verification of an alternative diesel fuel formulation by the Air Pollution Control Technologies Center, a center under the EPA's Environmental Technology Verification Program, and the EPA's Office of Transportation and Air Quality's Voluntary Diesel Retrofit Program, demonstrating at least a 5.78% reduction in NO<sub>x</sub> emissions when compared against a base diesel fuel with fuel properties within the ranges as described for nationwide average fuel in EPA's *Verification Protocol for Determination of Emissions Reductions Obtained by Use of Alternative or Reformulated Liquid Fuels, Fuel Additives, Fuel Emulsions, and Lubricants for Highway and Nonroad Use Diesel Engines and Light Duty Gasoline Engines and Vehicles* (Revision No. 03, September 2003).

Adopted April 26, 2006

Effective May 17, 2006

**§114.316. Monitoring, Recordkeeping, and Reporting Requirements.**

(a) Every producer or importer that has elected to sell, offer for sale, supply, or offer for supply diesel fuel that may ultimately be used in counties listed in §114.319 of this title (relating to Affected Counties and Compliance Dates) is subject to the applicable requirements of this section.

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

(c) Each producer or importer of a diesel fuel that conforms to §114.312(a) - (e) of this title shall sample and test for the aromatic hydrocarbon content and minimum cetane number in each final blend of LED that the producer or importer has produced or imported, by collecting and analyzing a representative sample of diesel fuel taken using the methodologies specified in §114.315 of this title (relating to Approved Test Methods). The producer or importer shall maintain, for two years from the date of each sampling, records showing the sample date, identity of blend sampled, container or other vessel sampled, final blend volume, and the aromatic hydrocarbon content and minimum cetane number. All diesel fuel produced by the producer or imported by the importer and not tested as LED by the producer or importer as required by this section will be deemed to exceed the standards specified in §114.312 of this title, unless the producer or importer demonstrates that the diesel fuel meets those standards and limits.

(d) Each producer or importer of a diesel fuel that conforms to §114.312(f) of this title shall sample and test for the appropriate components of the alternative diesel fuel formulation as listed in the

approval notification issued by the executive director under §114.315(c) or (d) of this title in each final blend of LED that the producer or importer has produced or imported, by collecting and analyzing a representative sample of diesel fuel taken from the final blend, using the methodologies specified in §114.315 of this title. If a producer or importer blends the diesel fuel components of the approved alternative diesel fuel formulation to produce a final blend of LED directly to pipelines, tank ships, railway tank cars, or trucks and trailers, the loading(s) must be sampled and tested for the appropriate components of the alternative diesel fuel formulation as approved by the executive director by the producer or importer or authorized contractor at a rate of one sample and test per 250,000 gallons of LED produced. The producer or importer shall maintain records showing the sample date, identity of blend sampled, container or other vessel sampled, final blend volume, and the content of the appropriate fuel components for two years from the date of each sampling. All diesel fuel produced by the producer or imported by the importer and not tested as LED by the producer or importer as required by this section will be deemed to exceed the standards specified in §114.312 of this title, unless the producer or importer demonstrates that the diesel fuel meets those standards and limits.

(e) If the alternative diesel fuel formulation being sampled and tested under subsection (d) of this section contains an additive system, the final blend must be sampled and tested for the content of the appropriate fuel components of the base fuel and additive as listed in the approval notification issued by the executive director under §114.315(c) or (d) of this title, and the producer or importer or authorized contractor shall maintain records showing that sufficient additive was added to maintain the appropriate additive concentration as approved by the executive director. If the additive is approved by the executive director for use with diesel fuel produced to comply with the fuel content standards specified in 40 Code of Federal Regulations §80.520, the testing for the content of the fuel components of the base fuel is not required.

(f) A producer or importer subject to the requirements of this division shall provide to the executive director any records required to be maintained by the producer or importer in accordance with this section within 15 days of a written request from the executive director, if the request is received before expiration of the period during which the records are required to be maintained. Whenever a producer or importer fails to provide records regarding a final blend of LED in accordance with the requirements of this section, the final blend of diesel fuel will be presumed to have been sold by the producer or importer in violation of the standards specified in §114.312 of this title, to which the producer or importer has elected to be subject.

(g) All parties in the distribution chain (producer, importer, terminals, pipelines, truckers, rail carriers, and retail fuel dispensing outlets) subject to the provisions of §114.312 of this title shall maintain copies or records of product transfer documents for a minimum of two years and shall upon request, make such copies or records available to representatives of the commission, United States Environmental Protection Agency, or local air pollution agency having jurisdiction in the area. The product transfer documents must contain, at a minimum, the following information:

- (1) the date of transfer;
- (2) the name and address of the transferor;
- (3) the name and address of the transferee;

(4) in the case of transferors or transferees who are producers or importers, the registration number of those persons as assigned by the commission under §114.314 of this title (relating to Registration of Diesel Producers and Importers);

(5) the volume of diesel fuel being transferred;

(6) the location of the diesel fuel at the time of transfer; and

(7) one of the following certification statements, as appropriate:

(A) "This product is Texas low emission diesel and may be used as fuel for diesel engines in any Texas county requiring the use of low emission diesel fuel."; or

(B) "This product may not be used as fuel for diesel engines in any Texas county requiring the use of low emission diesel fuel without further processing."; or

(C) "This product has been produced under a TCEQ approved alternative emission reduction plan and may be used as fuel for diesel engines in any Texas county requiring the use of low emission diesel fuel."

(h) For each final blend that is sold or supplied by a producer or importer from the party's production facility or import facility, and that contains volumes of diesel fuel that the party has produced and imported and volumes that the party neither produced nor imported, the producer or importer shall establish, maintain, and retain adequately organized records containing the following information.

(1) The volume of diesel fuel in the final blend that was not produced or imported by the producer or importer, the identity of the person(s) from whom such diesel fuel was acquired, the date(s) that it was acquired, and the invoice(s) representing the acquisition(s).

(2) The aromatic hydrocarbon content and the cetane number of the volume of diesel in the final blend that was not produced or imported by the producer or importer, determined either by:

(A) sampling and testing by the producer or importer of the acquired diesel fuel represented in the final blend; or

(B) written results of sampling and test of the diesel fuel supplied by the person(s) from whom the diesel fuel was acquired.

(3) A producer or importer subject to this subsection shall establish such records by the time the final blend triggering the requirements is sold or supplied from the production or import facility, and shall retain such records for two years from such date. During the period of required retention, the producer or importer shall make any of the records available to the executive director upon request.

(i) Each producer or importer electing to sell, offer for sale, supply, or offer to supply LED in accordance with §114.312 of this title shall provide a quarterly summation 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 information required to be collected by subsections (c) - (e), and (h) of this section and a reconciliation of the quarter's transactions relative to the requirements of subsections (c) - (e), and (h) of this section. Updates or revisions to estimated transaction volumes required by subsections (c) - (e) of this section must be included in this report.

(j) Each producer or importer electing to sell, offer for sale, supply, or offer to supply LED under §114.312(e) of this title shall provide to the executive director, as applicable, a copy of the executive order issued by the California Air Resources Board (CARB) for the Certified Diesel Fuel Formulation used to produce the LED or documentation demonstrating that the LED has been produced to meet all specifications for diesel fuel under regulations adopted by the CARB, except for those approved for small refinery compliance, that were in effect as of January 18, 2005, and shall comply with the requirements of subsections (c) and (h) of this section using the fuel specifications for aromatic hydrocarbon and cetane set by this executive order or regulations.

(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) the volume of diesel fuel produced by the producer that is subject to the provisions of the alternative emission reduction plan as approved by the executive director;

(2) the volume of diesel fuel that was not produced by the producer but was sold or supplied by the producer in the counties listed in §114.319 of this title and is subject to the provisions of the alternative emission reduction plan as approved by the executive director and the identity of the persons(s) from whom such diesel fuel was acquired and the date(s) that it was acquired. The producer shall retain records of the invoice(s) representing the acquisition(s) for two years from such date; and

(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.

Adopted April 26, 2006

Effective May 17, 2006

**§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) the diesel fuel is kept segregated from non-exempt product, and the person possessing the product maintains documentation identifying the product as research, development, or testing fuel, as applicable, and stating that it is to be used only for research, development, or testing purposes; and

(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) Any diesel fuel that is refined, sold, dispensed, transferred, or offered for sale, dispensing, or transfer as competition racing fuel is exempted from the provisions of this division, provided that:

(1) the fuel is kept segregated from non-exempt fuel, and the party possessing the fuel for the purposes of refining, selling, dispensing, transferring, or offering for sale, dispensing, or transfer as competition racing fuel maintains documentation identifying the product as racing fuel, restricted for non-highway use in competition racing motor vehicles or engines;

(2) each pump stand at a regulated facility, from which the fuel is dispensed, is labeled with the applicable fuel identification and use restrictions described in paragraph (1) of this subsection; and

(3) the fuel is not sold, dispensed, transferred, or offered for sale, dispensing, or transfer for highway use in a motor vehicle.

(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) 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) to power a diesel fueled compression-ignition engine in non-road equipment in the counties listed in §114.319(b) of this title, except for that used in conjunction with purposes stated in subsections (a) and (b) of this section.

**§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<sub>x</sub>) 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<sub>x</sub> 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.

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

Where:

M6 = The percent reduction in oxides of nitrogen (NO<sub>x</sub>) 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.

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

Where:

M6 = The percent reduction in oxides of nitrogen (NO<sub>x</sub>) 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.

$$M6 = (0.000005 \cdot X2) - (0.0016 \cdot X) + (0.1046)$$

Where:

M6 = The percent reduction in oxides of nitrogen (NO<sub>x</sub>) 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.

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

Where:

GNEI = Total oxides of nitrogen (NO<sub>x</sub>) 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<sub>x</sub> 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.

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

Where:

UM = Percentage of oxides of nitrogen (NO<sub>x</sub>) emission reductions attributed to on-road diesel for 2007 as calculated with the Unified Model.

GNEI = Total NO<sub>x</sub> 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<sub>x</sub> 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.

Adopted May 9, 2007

Effective May 31, 2007

**§114.319. Affected Counties and Compliance Dates.**

(a) Affected persons in the counties listed in subsection (b) of this section shall be in compliance in accordance with the schedule listed in subsection (c) of this section with §§114.312 - 114.317 of this title (relating to Low Emission Diesel Standards; Designated Alternate Limits; Registration of Diesel Producers and Importers; Approved Test Methods; Monitoring, Recordkeeping, and Reporting Requirements; and Exemptions to Low Emission Diesel Requirements), as applicable, for diesel fuel defined under §114.6(7)(A) of this title (relating to Low Emission Fuel Definitions) that may ultimately be used to power a diesel-fueled compression-ignition engine in a motor vehicle or in non-road equipment.

(b) The following counties are subject to subsection (a) of this section:

- (1) Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant;
- (2) Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller;
- (3) Hardin, Jefferson, and Orange; and

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

(c) Affected persons subject to subsection (a) of this section shall be in compliance with this division according to the following schedule:

(1) beginning October 1, 2005, for producers and importers;

(2) beginning November 15, 2005, for bulk plant distribution facilities; and

(3) beginning January 1, 2006, for retail fuel dispensing outlets, wholesale bulk purchaser/consumer facilities, and all other affected persons.

(d) Affected persons in the counties listed in subsection (b) of this section shall be in compliance in accordance with the schedule listed in paragraph (1), (2), or (3) of this subsection with §§114.312 – 114.317 of this title, as applicable, for any diesel as defined under §114.6(7)(B) of this title, that may ultimately be used to power a diesel-fueled compression-ignition engine located on a marine vessel in any of the counties listed in subsection (b)(2) of this section:

(1) beginning October 1, 2007, for producers and importers;

(2) beginning November 15, 2007, for bulk plant distribution facilities; and

(3) beginning January 1, 2008, for retail fuel dispensing outlets, wholesale bulk purchaser/consumer facilities, and all other affected persons.