

ATTACHMENT II

PROPOSED MODIFIED TEXT OF THE CaRFG3 AMENDMENTS

The following text shows the Board-approved modifications to the originally proposed regulatory text of the California Reformulated Gasoline Phase 3 (CaRFG3) amendments, with conforming modifications prepared by Air Resources Board (ARB) staff. The modifications are shown in double underline to indicate additions to the originally proposed text, and **bold** ~~strikeout~~ to show deletions. Only those portions of the regulatory text that contain substantive modifications are shown. The symbol “ * * * * ” means that unmodified text has been omitted. The complete regulatory text with all modifications is posted on the Internet site for this rulemaking — <http://www.arb.ca.gov/regact/carfg3/carfg3.htm>. If the EMFAC 2000 emissions inventory is adopted by the Board by the end of May 2000, modifications reflecting adoption of EMFAC 2000 will be made available by a subsequent “15-Day” Notice.

Section 2260. Definitions.

(a) For the purposes of this subarticle, the following definitions apply:

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(28.5) “Qualifying small refiner” means a small refiner whose California refinery was used in 1998 and 1999 to produce and supply California gasoline meeting the CaRFG Phase 2 standards.

(29) “Qualifying volume” means, for each small refiner, ~~the a~~ volume of gasoline equal to the average of the three highest annual production volumes of motor vehicle gasoline reported for the small refiner's California refinery(ies) in the period 1987 through 1991, inclusive, to the California Energy Commission as required by the Petroleum Industry Information Reporting Act of 1980 (Public Resources Code Sections 25350 et seq.), deducting the volume of oxygenates in the gasoline. determined in accordance with the following four steps, provided that the qualifying volume for Kern Oil & Refining Co.'s Bakersfield refinery shall not exceed 2,920,000 barrels per year (equal to 8000 barrels per day; 2,928,000 barrels per year in leap years):

(A) First, the barrel per calendar day "operating crude oil capacity" of the small refiner's refinery in March 1999 is identified, based on data which are reported to the executive officer from the California Energy Commission (CEC) and are derived from "Monthly Refinery Reports" (EIA 810) submitted to the CEC no later than June 30, 1999. If the CEC is unable to derive such data from the Monthly Refinery Reports for a particular

small refiner, the executive officer shall determine the small refiner's operating crude oil capacity in March 1999 based on other publicly available and generally recognized sources.

(B) Second, this operating crude oil capacity is multiplied by 0.9794, representing the highest monthly refinery operating utilization rate in the California refining industry for January 1998 through March 1999, as compiled in the "Monthly Refinery Capacity Data Statewide" report of the CEC.

(C) Third, the resulting crude throughput volume is multiplied by the refinery's highest monthly ratio of gasoline produced to crude oil distilled in January 1998 through March 1999, based on data derived by the CEC from the Monthly Refinery Reports submitted to the CEC no later than June 30, 1999.

(D) Fourth, the resulting gasoline volume is multiplied by 365 to identify an annualized value. In the case of leap years, the gasoline volume is multiplied by 366 to identify the annualized value.

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Commentary: The amendments to these definitions are part of the modifications pertaining to small refiners, described in Item 4 of Attachment B to Resolution 99-39. Kern Oil & Refining Co. is to staff's knowledge the only small refiner that produced gasoline complying with the CaRFG2 standards in 1998 and 1999, and would be the only refiner meeting the criteria for a qualifying small refiner. Since "qualifying small refiners" are the only ones that have taken the actions necessary to come into compliance with the existing CaRFG2 standards, it is appropriate to limit these small refiner provisions to this category. For small refiners typically without idle units, operating capacity and operating utilization rates are appropriate measures to use. The 0.9794 operating utilization rate, for September 1998, was provided by CEC staff.

Section 2261. Applicability of Standards; Additional Standards.

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(b) Applicability of the CaRFG Phase 3 Standards.

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(3) Early Compliance with the CaRFG Phase 3 Standards Before December 31, 2002.

(A) Any producer or importer wishing to supply from its production or import facility, before December 31, 2002, any final blends of gasoline subject to the CaRFG Phase 3

standards instead of the CaRFG Phase 2 standards may notify the executive officer of its wish to do so. The notification shall include all of the following:

1. The approximate date by which it intends to begin supplying from its production or import facility gasoline complying with the CaRFG Phase 3 standards if permitted to do so;
2. A reasonably detailed demonstration of the producer's or importer's ability and plans to begin supplying from its production or import facility substantial quantities of one or more grades of gasoline meeting the CaRFG Phase 3 standards on or after the date specified;

(B) 1. Within 15 days of receipt of a request under section 2261(b)(3)(A), the executive officer shall notify the producer or importer making the request either that the request is complete, or specifying what additional information is necessary to make the request complete.

2. Within 15 days of notifying the producer or importer that the request is complete, the executive officer shall either grant or deny the request. If the request is granted the executive officer shall specify the date on which producers and importers may start to supply from their production or import facilities final blends that comply with the CaRFG Phase 3 standards. The executive officer shall grant the request if he or she determines it is reasonably likely that the producer or importer making the request will start supplying substantial quantities of one or more grades of gasoline complying with the CaRFG Phase 3 standards reasonably soon after the date specified. If the executive officer denies the request, he or she shall provide the producer or importer with a written statement explaining the reason for denial.

3. Upon granting a request made under section 2261(b)(3)(A), the executive officer shall notify interested parties of the date on which (i) producers and importers will be permitted to start supplying final blends of gasoline complying with the CaRFG Phase 3 standards, and (ii) the CaRFG Phase 2 cap limits for RVP and aromatics will become 7.20 psi and 35.0 percent respectively for gasoline downstream of the production or import facility. This notification shall be made by posting the pertinent information on the state board's Internet site, providing electronic mail notification to all persons subscribing to the state board's Fuels-General Internet electronic mail list, and mailing notice to all persons registered as motor vehicle fuel distributors under Health and Safety Code section 43026.

4. With respect to all final blends supplied from a production or import facility from the day specified by the executive officer in granting a request made under

section 2261(b)(3)(A) through December 30, 2002, any producer or importer may comply with the CaRFG Phase 3 standards that apply starting December 31, 2002 as an alternative to the CaRFG Phase 2 standards. Whenever a producer or importer is supplying a final blend subject to the CaRFG Phase 3 standards pursuant to this section 2261(b)(3)(B)4., any notification required by sections 2264.2 or 2265(a) shall indicate that the final blend is subject to the CaRFG Phase 3 standards.

* * * *

Commentary: New § 2261(b)(3) establishes a mechanism under which a refiner or importer could elect to supply gasoline meeting the CaRFG3 standards — including the prohibition of MTBE and the CaRFG3 Predictive Model — prior to December 31, 2002. This modification would make it easier for refiners and importers to supply MTBE-free gasoline prior to the mandatory phase-out deadline at the end of 2002. It implements Item 3 of Attachment B to Resolution 99-39.

Allowing early compliance with the CaRFG3 standards would necessarily mean that the higher CaRFG3 cap limits for Reid vapor pressure (RVP) and aromatics would become applicable for all downstream gasoline, including gasoline still subject to the CaRFG2 standards; at the same time, the more stringent CaRFG3 sulfur and benzene caps could not yet apply downstream because of the continuing presence of gasoline subject to the CaRFG2 standards. This would necessarily hamper the ARB's downstream enforcement efforts, as inspectors would not be able to enforce the more stringent CaRFG2 cap limits for gasoline that would otherwise be subject to those caps. Accordingly, early compliance with the CaRFG3 standards would only be allowed if a producer or importer demonstrates the intent and ability to produce substantial quantities of one or more grades of gasoline complying with the CaRFG3 standards — in which case the benefits from the early reduction in MTBE use will outweigh the reduction in downstream enforceability. A refiner or importer wishing to use early CaRFG3 compliance would have to apply to the Executive Officer for authorization to do so. Once the Executive Officer specifies a date on which compliance with the CaRFG3 standards will be allowed, it will be allowed for all producers and importers.

The language providing that “early opt-in” CaRFG Phase 3 gasoline is subject to the CaRFG Phase 3 standards applicable December 31, 2002 means that the gasoline is subject only to those portions of § 2262.6 (MTBE and other oxygenates) that apply starting December 31, 2002.

Section 2262. The California Reformulated Gasoline Phase 2 and Phase 3 Standards.

The CaRFG Phase 2 and CaRFG Phase 3 standards are set forth in the following table. For all properties but Reid vapor pressure (cap limit only) and oxygen content, the value of the regulated property must be less than or equal to the specified limit. With respect to The Reid vapor pressure cap limit and the oxygen content flat and cap limit, the limits are expressed as a range, and the Reid vapor pressure and oxygen content must be less than or equal to the upper limit, and more than or equal to the lower limit. A qualifying small refiner may comply with the small refiner CaRFG Phase 3 standards, in place of the CaRFG Phase 3 standards in this section, in accordance with section 2272.

The California Reformulated Gasoline Phase 2 and Phase 3 Standards

<i><u>Property</u></i>	<i><u>Flat Limits</u></i>		<i><u>Averaging Limits</u></i>		<i><u>Cap Limits</u></i>	
	<i><u>CaRFG Phase 2</u></i>	<i><u>CaRFG Phase 3</u></i>	<i><u>CaRFG Phase 2</u></i>	<i><u>CaRFG Phase 3</u></i>	<i><u>CaRFG Phase 2</u></i>	<i><u>CaRFG Phase 3</u></i>
Reid Vapor Pressure ¹ (pounds per square inch)	<u>7.00</u>	<u>7.00 or 6.90²</u>	<u>Not Applicable</u>	<u>Not Applicable</u>	<u>7.00³</u>	<u>6.40 - 7.20</u>
Sulfur Content (parts per million by weight)	<u>40</u>	<u>20</u>	<u>30</u>	<u>15</u>	<u>80</u>	<u>60^{3,4}</u> <u>30^{3,4}</u>
Benzene Content (percent by volume)	<u>1.00</u>	<u>0.80</u>	<u>0.80</u>	<u>0.70</u>	<u>1.20</u>	<u>1.10</u>
Aromatics Content (percent by volume)	<u>25.0</u>	<u>25.0</u>	<u>22.0</u>	<u>22.0</u>	<u>30.0³</u>	<u>35.0</u>
Olefins Content (percent by volume)	<u>6.0</u>	<u>6.0</u>	<u>4.0</u>	<u>4.0</u>	<u>10.0</u>	<u>10.0</u>
T50 (degrees Fahrenheit)	<u>210</u>	<u>211</u> <u>213</u>	<u>200</u>	<u>201</u> <u>203</u>	<u>220</u>	<u>225</u> <u>220</u>
T90 (degrees Fahrenheit)	<u>300</u>	<u>305</u>	<u>290^{4,5}</u>	<u>295</u>	<u>330</u>	<u>335</u> <u>330</u>
Oxygen Content (percent by weight)	<u>1.8 - 2.2</u>	<u>1.8 - 2.2</u>	<u>Not Applicable</u>	<u>Not Applicable</u>	<u>1.8⁶ - 3.5⁵</u> <u>0⁶ - 3.5⁵</u>	<u>1.8⁶ - 3.5^{5,6,7}</u> <u>0⁶ - 3.5^{5,6,7}</u>
Driveability Index (DI) ⁷	<u>None</u>	<u>1225</u>	<u>Not Applicable</u>	<u>Not Applicable</u>	<u>None</u>	<u>None</u>
Methyl tertiary-butyl ether (MTBE) and other oxygenates	<u>None</u>	<u>None</u>	<u>None</u>	<u>None</u>	<u>None</u>	<u>See §2262.6</u>

¹ The Reid vapor pressure standards apply only during the warmer weather months identified in section 2262.4.
² The 6.90 psi standard applies only when a producer or importer is using the evaporative emissions model element of the CaRFG Phase 3 Predictive Model.
³ For sales, supplies, or offers of California gasoline downstream of the production or import facility starting on the date on which early compliance with the CaRFG Phase 3 standards is permitted by the executive officer under

section 2261(b)(3), the CaRFG Phase 2 cap limits for Reid vapor pressure and aromatics content shall be 7.20 psi and 35.0 percent by volume respectively.

The CaRFG Phase 3 sulfur content cap limits of 60 and 30 parts per million are phased in starting December 31, 2002, and December 31, 2004, respectively, in accordance with section 2261(b)(1)(A).

Designated alternative limit may not exceed 310.

The 1.8 percent by weight minimum oxygen content cap only applies during specified winter months in the areas identified in section 2262.5(a).

If the gasoline contains more than 3.5 percent by weight oxygen but no more than 10 volume percent ethanol, the maximum oxygen content cap is 3.7 percent by weight.

DI equals $1.5 \times T10 + 3 \times T50 + T90 + 20 \times (\text{wt. \% oxygen})$. The DI standard applies only during the Reid vapor pressure control periods identified in section 2262.4(b)(2).

NOTE: Authority cited: sections 39600, 39601, 43013, 43013.1, 43018, 43101, and 43830, Health and Safety Code; and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975). Reference: sections 39000, 39001, 39002, 39003, 39010, 39500, 39515, 39516, 41511, 43000, 43013, 43013.1, 43016, 43018, 43101, 43830, and 43830.8, Health and Safety Code; and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975).

Commentary: Returning the CaRFG3 cap limits for T50 and T90 to the CaRFG2 cap limits for those properties, and deletion of the proposed specification for DI, reflect the Item 1 modifications in Attachment B to Resolution 99-39. The marginal flexibility added by the originally proposed CaRFG3 cap limits for T50 and T90 is outweighed by the benefits from eliminating DI constraints which are no longer needed as the T50 and T90 caps will maintain existing fuel performance.

Revising the CaRFG3 T50 flat limit from 211°F to 213°F, and the CaRFG3 T50 averaging limit from 201°F to 203°F, reflects the Item 2 modifications in Attachment B to Resolution 99-39. Based upon improved data on the average in-use fuel in 1998, these revisions can be made while still preserving the full benefits of the current program. These changes provide additional flexibility to refiners and allow greater production of complying gasoline in California refineries. The improved data on 1998 in-use fuel became available after the preparation of the Staff Report.

New footnote 3 in the table raises the CaRFG2 downstream cap limits for RVP and aromatics once producers and importers are allowed to comply with the CaRFG3 standards in place of the CaRFG2 standards, since downstream CaRFG2 can be commingled with CaRFG3 meeting the higher CaRFG3 cap limits.

The addition of an entry for MTBE and other oxygenates is nonsubstantive, and is intended to make clear that any gasoline supplied by a producer or importer as subject to the CaRFG3 standards pursuant to § 2261(b)(3) prior to December 31, 2002 is also subject to the prohibitions in § 2262.6.

The addition of a zero to each of the listed benzene content standards conforms the number of significant digits to those in the preexisting benzene content limits in § 2262.3.

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Section 2262.3 Compliance With the CaRFG Phase 2 and CaRFG Phase 3 Standards for Sulfur, Benzene, Aromatic Hydrocarbons, Olefins, T50, T90 and DI.

* * * *

(b) Compliance by producers and importers with the flat limits.

(2) DI. No producer or importer shall sell, offer for sale, supply, or offer for supply from its production facility or import facility California gasoline which exceeds the applicable flat limit DI set forth in section 2262 during the Reid vapor pressure control periods set forth in section 2262.4(b)(2).

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Commentary: Deletion of § 2262.3(b)(2) reflects the Board's determination to eliminate the proposed DI standard.

Section 2262.6. Prohibition of MTBE and Oxygenates Other Ethers Than Ethanol in California Gasoline Starting December 31, 2002.

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(c) Use of oxygenates other ethers than ethanol in California gasoline on or after December 31, 2002. Starting December 31, 2002, no person shall sell, offer for sale, supply or offer for supply California gasoline which has been produced with the use of **ethyl tertiary-butyl ether (ETBE), tertiary amyl methyl ether (TAME), or any other non-MTBE ether** any oxygenate other than ethanol unless a multimedia evaluation of use of the ether in California gasoline has been conducted and the California Environmental Policy Council established by Public Resources Code section 71017 has determined that such use will not cause a significant adverse impact on the public health or the environment.

* * * *

Commentary: This modification implements Item 7 of Attachment B to Resolution 99-39. It expands the conditional prohibition of ethers other than MTBE to include any oxygenate other than MTBE or ethanol. The originally proposed regulatory language failed to reflect staff's intent, expressed on page 23 of the Staff Report, that the conditional prohibition apply to alcohols other than ethanol. The modified language also extends the conditional prohibition to any other oxygenates, such as esters.

Section 2262.9. Standards for Denatured Ethanol Intended For Use as an Additive in California Gasoline

(a) Standards. Starting December 31, 2002, no person shall sell, offer for sale, supply or offer for supply denatured ethanol intended for blending with CARBOB or California gasoline that has:

(1) A sulfur content exceeding 1 parts per million;

(2) An aromatic hydrocarbon content exceeding 1 percent by volume;

(3) A benzene content exceeding 0.1 percent by volume; or

(4) An olefins content exceeding 0.1 percent by volume.

(b) Test Methods. In determining compliance with the standards in this section, the sulfur, aromatic hydrocarbon, benzene and olefins content of denatured ethanol shall be determined by the methods specified in section 2263 for determining the content of those compounds in gasoline.

NOTE: Authority cited: sections 39600, 39601, 43013, 43013.1, 43018, and 43101, Health and Safety Code; and Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975). Reference: sections 39000, 39001, 39002, 39003, 39010, 39500, 39515, 39516, 41511, 43000, 43013, 43013.1, 43016, 43018, 43101, and 43830.8, Health and Safety Code; and Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975).

Commentary: Deletion of the proposed specifications for denatured alcohol reflects Item 6 of Attachment B to Resolution 99-39. Additional information is needed before appropriate specifications can be adopted. The staff plans to propose specifications in the subsequent rulemaking the Board will consider in October 2000.

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Section 2266.5. Requirements Pertaining to California Reformulated Gasoline Blendstock for Oxygen Blending (CARBOB) and Downstream Blending.

(a) Application of the California gasoline standards to CARBOB.

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(2) *Determining whether CARBOB complies with the standards for California gasoline.*

(A) Where a producer or importer has designated a final blend as CARBOB and has complied with all applicable provisions of this section 2266.5, the properties of the final blend for purposes of compliance with sections ~~2262.1 through 2262.7~~ 2262.2, 2262.3, 2262.4, 2262.5 and 2262.6 shall be determined by adding the specified type and amount of oxygenate to a representative sample of the CARBOB and determining the properties and characteristics of the resulting gasoline in accordance with an applicable test method identified in section 2263(b) or permitted under section 2263(c). Where the producer or importer has in accordance with section (b)(1)(C) designated a range of amounts of oxygenate, or more than one oxygenate type, to be added to the CARBOB, the minimum designated amount of the oxygenate having the smallest designated volume shall be added to the CARBOB when determining the properties and characteristics of the final blend. If the producer or importer has not complied with any applicable provisions of this section 2266.5, the properties of the final blend for purposes of the producer's or importer's compliance with sections ~~2262.2 through 2262.7~~ 2262.3 and 2262.5 shall be determined without adding oxygenate to the gasoline.

~~(B) In determining whether CARBOB complies with the standards for California gasoline, the oxygenate added must be representative of the oxygenate the producer or importer reasonably expects will be subsequently added to the final blend. Prior to supplying CARBOB from a production or import facility, the producer or importer must enter into a protocol with the executive officer setting forth how the representativeness of the oxygenate will be determined.~~

(B) In determining whether CARBOB complies with the standards for California gasoline, the oxygenate added must be representative of the oxygenate the producer or importer reasonably expects will be subsequently added to the final blend. Prior to supplying CARBOB from a production or import facility, the producer or importer must enter into a protocol with the executive officer setting forth how the representativeness of the oxygenate will be determined.

Commentary: Reinstatement of the § 2266.5(a)(2)(B) provision on the representativeness of oxygenates used in CARBOB testing reflects Item 6 of Attachment B to Resolution 99-39. Deletion of the provision was originally proposed because the new specifications for denatured alcohol made the provision unnecessary. However, the Board is deferring adoption of the denatured alcohol specifications until the subsequent rulemaking to be considered by the Board in October 2000.

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Section 2272. Gasoline Produced by CaRFG Phase 3 Standards for Qualifying Small Refiners.

(a) ~~Inapplicability of specified standards prior to March 1 and April 1, 1998.~~

~~(1) The standards contained in sections 2262.2(b) and (c) (sulfur content), 2262.4(b) and (c) (olefin content) and 2262.6(b), (c), (e) and (f) (distillation temperatures) shall not apply to gasoline supplied from a small refiner's California refinery prior to March 1, 1998, if the small refiner has been issued a currently effective certification pursuant to section (b), and the gasoline qualifies for treatment under section (c).~~

~~(2) Prior to April 1, 1998, the standards in sections 2262.2(a), 2262.4(a), and 2262.6(a) shall not apply to gasoline described in section (a)(1).~~

(a) *CaRFG Phase 3 Standards for Qualifying Small Refiners.* In place of the CaRFG Phase 3 standards set forth in section 2262, a qualifying small refiner may elect to have a final blend of California gasoline supplied from the small refiner's refinery subject to the "small refiner CaRFG Phase 3 standards," which are identical to the CaRFG Phase 3 standards in section 2262 except that: (i) the flat limit for benzene content is 1.00 percent by volume (vol.%) instead of 0.80 vol.%, (ii) the flat limit for aromatics content is 35.0 vol.% instead of 25.0 vol.%, (iii) the flat limit for T50 is 220° F. instead of 213° F, and (iv) the flat limit for T90 is 312° F. instead of 305° F. This election may only be made if the small refiner has been issued a currently effective certification pursuant to section (b) and the gasoline qualifies for treatment under section (c).

(b) Certification of small refiners.

(1) A small refiner wishing to produce gasoline subject to this section shall submit to the executive officer an application for certification on the Air Resources Board's ARB/SSD/CPB Form ~~92-4-1 00-3-1~~, for each of the small refiner's California refineries. **~~An application for qualification for the 12-month period March 1, 1996 through February 28, 1997 shall be submitted by December 1, 1995. An application for qualification for the 12-month period March 1, 1997 through February 28, 1998 shall be submitted by December 1, 1996.~~** The application shall be executed by a responsible corporate officer under penalty of perjury.

(2) The small refiner's application shall set forth: [A] the crude oil capacity of the refinery since January 1, 1978; [B] the crude oil capacities of all the refineries in California and the United States which are owned or controlled by, or under common ownership or control with, the small refiner since September 1, 1988; [C] data demonstrating that the refinery has the capacity to produce liquid fuels by distilling petroleum; and [D] **~~copies of the reports made to the California Energy Commission as required by the Petroleum~~**

~~Industry Reporting Act of 1980 (Public Resources Code Sections 25350 et seq.) showing the annual production volumes of all grades of motor gasoline at the small refiner's California refinery for 1987 through 1991; the copies of the reports shall be accompanied by a statement by a responsible corporate officer stating whether the reported gasoline volumes include any oxygenates, and the volume of any such oxygenates included a demonstration that the small refiner's California refinery was used in 1998 and 1999 to produce and supply California gasoline meeting the CaRFG Phase 2 standards.~~

- ~~(3) The application shall include a compliance schedule showing how the small refiner will modify the California refinery(ies) to enable the production of gasoline meeting the standards set forth in sections 2262.2, 2262.4 and 2262.6 by March 1, 1998, in a volume equal to or greater than the small refiner's qualifying volume. The compliance schedule shall set forth the sequence and respective dates of all key events in the construction process including securing of financing, completion of plans and engineering drawings, ordering of equipment, receipt of equipment, signing of construction and other necessary contracts, commencement and completion of various phases of work, commencement and completion of testing, and other similar events and dates. An application for qualification for the 12 month period March 1, 1996 through February 28, 1997 shall additionally include evidence of capital commitments to make the refinery modifications identified in the compliance plan. Such evidence shall include copies of binding contracts for design and construction, and copies of approved permits for construction of the equipment. An application for qualification for the 12 month period March 1, 1997 through February 28, 1998 shall additionally include evidence that on-site construction has begun.~~
- ~~(4) (3) Within ~~60~~ 30 days of receipt of the application, the executive officer shall grant or deny it in writing. The executive officer shall grant the application if he or she determines that: [A] the application contains all of the information identified in sections (b)(1) and (2) above, and [B] the applicant meets the definition of small refiner, ~~and [C] the compliance schedule is reasonably likely to enable the small refiner to produce gasoline in compliance with sections 2262.2, 2262.4 and 2262.6 by March 1, 1998. An order certifying a refiner as qualifying for treatment under this section shall set forth the compliance schedule found by the executive officer to be reasonably likely to enable compliance.~~ Any denial of an application shall include a statement of the reasons for denial.~~
- ~~(5) A small refiner who has received a certification pursuant to section (b)(4) shall notify the executive officer in writing within 10 days after the failure of the small refiner to meet any increment of progress on the compliance schedule identified in~~

~~the certification order, and the likely effect of that failure on the ability of the small refiner to comply with sections 2262.2, 2262.4 and 2262.6 by March 1, 1998.~~

~~(6) Upon a determination of good cause, based on receipt of a notification made pursuant to section 2272(b)(5) or other relevant information, the executive officer may conduct a public hearing on the ability of a small refiner that has received a certification pursuant to section (b)(4) to produce gasoline in compliance with sections 2622.2, 2262.4 and 2262.6 by March 1, 1998. At least 10 days written notice of the hearing shall be given to the small refiner and to any person who has requested such notice. If following the hearing the executive officer determines that the small refiner is no longer reasonably likely to be able to produce gasoline in compliance with sections 2262.2, 2262.4 and 2262.6 by March 1, 1998, s/he shall rescind the order issued pursuant to section (b)(4), effective 10 days after written notification of the rescission to the small refiner.~~

(c) *Criteria for qualifying gasoline.* Gasoline shall only be subject to treatment under this section if the small refiner demonstrates all of the following:

(1) The gasoline was produced by the small refiner at the small refiner's California refinery.

(2) The gasoline was supplied from the small refiner's California refinery in a calendar quarter in which ~~two-thirds~~ 25 percent or more of the gasoline that was produced by the small refiner and that was supplied from the refinery in the calendar quarter was refined at the small refinery from crude oil. The volume of oxygenates in the gasoline shall not be counted in making this calculation. The period from ~~March 1, 1996~~ December 31, 2002 through ~~June 30, 1996~~ March 31, 2003 shall be treated as a calendar quarter under this section (c)(2).

(3) For the ~~12 month periods March 1, 1996 through February 28, 1997, and March 1, 1997 through February 28, 1998~~ period December 31, 2002, through December 31, 2003, and for each subsequent calendar year, the gasoline was supplied from the small refiner's California refinery before the full qualifying volume of gasoline produced by the small refiner had been supplied from the refinery during ~~the 12 month~~ that periods ~~or year.~~ In calculating the volume of gasoline supplied from the refinery ~~in the 12 month periods,~~ the volume of oxygenates in the gasoline shall not be counted. Gasoline that is designated by the small refiner as ~~not qualifying for treatment under this section (c)~~ subject to all of the CaRFG Phase 3 standards in section 2262, and is reported to the executive officer pursuant to a protocol entered into by the small refiner and the executive officer, shall not be counted against the qualifying volume ~~and shall be subject to all of the standards identified in section 2272(a)(1).~~

(4) At the time the gasoline was supplied from the small refiner's refinery, the small refiner met the definition of a small refiner.

(5) The excess emissions of hydrocarbons, oxides of nitrogen, and potency-weighted toxics are offset pursuant to section 2282, title 13, California Code of Regulations. The excess emissions from gasoline subject to the small refiner CaRFG Phase 3 standards are: 0.0206 pounds of exhaust hydrocarbons per barrel, 0.0322 pounds of oxides of nitrogen per barrel, and the potency-weighted toxic emissions equivalent of 0.0105 pounds of benzene per barrel.

(d) Compliance with applicable federal RFG requirements. Any small refiner subject to this section shall comply with all applicable requirements of the federal reformulated gasoline regulations in 40 CFR Part 80 Subpart D, commencing with § 80.40.

~~(d)~~(e) Additional reporting requirements for small refiners.

(1) In addition to the requirements of section 2270, ~~for the period from March 1, 1996 through February 28, 1998~~, each small refiner who qualifies for treatment under this section shall submit to the executive officer reports containing the information set forth below for each of the small refiner's California refineries, starting on the date on which a qualifying small refiner supplies from its refinery gasoline subject to the small refiner CaRFG Phase 3 standards. The reports shall be executed in California under penalty of perjury, and must be received within the time indicated below: December 31, 2002 through January 31, 2003 shall be treated as a month.

(A) The quantity, ~~ASTM grade, sulfur content, olefin content, T90 and T50~~ of all gasoline, produced by the small refiner, that is supplied from the small refinery in each month, within 15 days after the end of the month, the quantity of all such gasoline that is California gasoline subject to the small refiner CaRFG3 standards, and the quantity of all such gasoline that is California gasoline not subject to the small refiner CaRFG3 standards;

(B) The identity and volume of each oxygenate contained in the gasoline described in section (d)(1)(A) above, within 15 days after the end of the month;

~~(C) The quantity and ASTM grade of any gasoline that is supplied from the small refinery in each month and that was not produced by the small refiner, accompanied by a demonstration why the gasoline was not produced by the small refiner, within 15 days after the end of the month;~~

~~(D)~~ (C) For each calendar quarter, a statement whether ~~two-thirds~~ 25 percent or more of the gasoline transferred that was produced by the small refinery and that was supplied

from the **small refiner's** refinery in the calendar quarter was **produced by the distillation of crude oil at the small refiner's** refined at the small refinery from crude oil, within 15 days after the close of such quarter;

~~(E)~~ (D) The date, if any, on which the small refiner completes transfer from its small refinery in the **12 month** periods **March 1, 1996 through February 28, 1997, and March 1, 1997 through February 28, 1998** December 31, 2002 through December 31, 2003, and in each subsequent calendar year, of the small refiner's qualifying volume of gasoline produced by the small refiner, calculated as described in section (c)(3), within 5 days after such date;

~~(F)~~ (E) Within 10 days after project completion, any refinery addition or modification which would affect the qualification of the refiner as a small refiner pursuant to the definition in section 2260(a)(22); and

~~(G)~~ (F) Any change of ownership of the small refiner or the small refiner's refinery, within 10 days after such change of ownership.

~~(2) Whenever a small refiner fails to provide records identified in sections (d)(1)(A), (B), or (C) in accordance with the requirements of those sections (d)(1)(A), (B), or (C), the California gasoline supplied by the small refiner from the small refiner's refinery in the time period of the required records shall be presumed to have been sold or supplied by the small refiner in violation of sections 2262.2, 2262.4, and 2262.6.~~

NOTE: Authority cited: sections 39600, 39601, 43013, 43018, and 43101, Health and Safety Code; and Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975). Reference: sections 39000, 39001, 39002, 39003, 39010, 39500, 39515, 39516, 41511, 40000, 43016, 43018, and 43101, Health and Safety Code; and Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975).

Commentary: The modifications to this section implement Item 5 of Attachment B to Resolution 99-39. Since the preexisting CaRFG2 provisions on small refiners only affected activities before March 1, 1998, it is appropriate to substitute the CaRFG3 provisions in their place.

The small refiner CaRFG3 standards in § 2272(a) are as described in Attachment B. These standards are necessary to avoid the disproportionately high costs a qualifying small refiner would have to incur to comply with the generally applicable CaRFG3 standards. The requirements for the application in § 2272(b)(2) reflect the elements of the definition of "qualifying volume" and "qualifying small refiner" in § 2260(a).

The required percentage of the small refiner's gasoline that must have been refined at the small refinery from crude oil is reduced from the interim CaRFG2 requirement. An inability to use MTBE or other nonethanol oxygenates could increase the refiner's need to use blending components. The stringent interim CaRFG2 requirement was necessary in part because the small refiner would be exempt from four of the eight CaRFG2 standards. Under the CaRFG3 requirements a qualifying small refiner will be subject to limits for all eight specifications and will be required to provide offsets; thus there is less of a need for stringent blending limits. The 25 percent figure is identical to that in the diesel aromatics regulation (§ 2282(e)(1)).

Section 2272(c)(5) requires that, in order to supply gasoline subject to the small refiner CaRFG3 standards, the small refiner must offset the excess emissions of oxides of nitrogen (NOx), hydrocarbons and potency-weighted toxics pursuant to § 2282 (Aromatic Hydrocarbon Content of Diesel Fuel), title 13, CCR.. The § 2282 offset provisions will be part of the upcoming rulemaking to be considered by the Board in October 2000; small refiners will be able to produce gasoline subject to the small refiner CaRFG3 standards only after the § 2282 offset provisions are in place.

Section 2272(c)(5) identifies the pounds of excess emissions that must be offset per barrel of gasoline subject to the small refiner CaRFG3 flat limits. Consistent with the requirements of last year's S.B. 989 (Sher), the CaRFG3 standards have been designed to assure that the hydrocarbon, NOx and potency-weighted toxics emissions from in-use gasoline produced to meet the CaRFG3 standards will be no greater than the emissions from the average 1998 in-use gasoline produced to meet the CaRFG2 standards. In identifying the excess emissions from small refiner CaRFG3 that must be offset, it is similarly appropriate to compare the expected additional emissions from in-use gasoline produced to meet the small refiner CaRFG3 standards with emissions from the average 1998 in-use gasoline produced to meet the CaRFG2 standards. In making this comparison, staff used the California Energy Commission (CEC) survey data for 1998 in-use gasoline, and assumed that the same compliance margins would be reflected in gasoline produced to meet the small refiner CaRFG3 flat limits. The 1998 and compliance margin values are the same as those used in evaluating whether the CaRFG3 standards meets the maintenance-of-benefits requirements of S.B. 989.

Using this approach, the CaRFG3 Predictive Model shows the small refiner flat limits resulting in a 2.04 percent increase in exhaust hydrocarbons, and a 1.76 percent increase in NOx. The pounds per barrel emissions increases for these two pollutants were calculated by applying the percentage increases to the statewide gasoline vehicle emissions estimate made by EMFAC7G for the year 2005 (450.8 and 817.37 tons per day for exhaust hydrocarbons and NOx respectively), converting to pounds, and then dividing the result by the EMFAC7G estimate of the statewide daily gasoline usage, 894,163 barrels.

The potency-weighted toxics element is expressed as the potency-weighted toxic emissions equivalent of a 0.0105 pound per barrel increase in benzene. Expressing the excess emissions in benzene-equivalent terms is more readily understandable than using an abstract potency-weighted toxics index. The potential offsets are not limited to reductions in benzene emissions; rather reductions in emissions of any toxic air contaminants may be provided as long as they are the potency-weighted toxic emissions equivalent of the specified increase in benzene emissions. The following table and discussion shows how the 0.0105 pound per barrel value was derived.

Pollutant	Column 1 Predicted Emissions at Ph. 3 Flat Limits (mg/mi)	Column 2 Predicted % Increase from Small Refiner Limits	Column 3 Pounds per day Increase	Column 4 Potency (per ug/m ³)	Column 5 Total Pounds Increase x Potency (per ug/m ³)	Column 6 Pounds Increase x Potency Per Barrel (per ug/m ³)	Column 7 Equivalent pounds per barrel increase in benzene emissions
Ex. Benz.	13.55	34.7	8,821	2.9E-5	0.2558		
Ev. Benz.	3.16	38.5	2,283	2.9E-5	0.0662		
Butadiene	2.47	-5.9	-273	1.7E-4	-0.0464		
Formald.	6.00	-15.0	-1,689	6.0E-6	-0.0101		
Acetald.	2.05	64.0	2,462	2.7E-6	0.0066		
Total					0.2721	3.04E-7	0.0105

The values in column 1 are derived from outputs of the CaRFG3 Predictive Model, after applying a conversion factor to convert from the Predictive Model scale to the EMFAC7G scale. The column 2 values are also derived from the Predictive Model. Column 3 shows the pounds per day increase for each toxic pollutant if every barrel of gasoline were produced at the small refiner CaRFG3 flat limits. To arrive at the column 3 figures, the mg/mi values in column 1 were multiplied by the fraction representing the percentage increase shown in column 2, and the result was multiplied 851,773,000 — the statewide total daily vehicle miles traveled in 2005 from EMFAC7G. Column 4 shows the ARB's potency values for the four toxic pollutants. The column 3 values were multiplied by the column 4 values to arrive at the column 5 values for each pollutant, and the individual values were then totaled.

To put the column 5 total increase on a per barrel basis, the 0.2721 number was divided by the projected 2005 daily gasoline use (894,163 bpd), resulting in the column 6 potency-weighted pounds increase of 3.04E-7 lb. per (ug/m³) per barrel. In order to express this value as the equivalent to a pounds per barrel increase in benzene emissions, the column 6 value was divided by the potency weight for benzene (2.9E-5 per (ug/m³)). The result, shown in column 7, is 0.0105 pounds of benzene per barrel.

The § 2272(c)(5) requirement that the small refiner comply with all applicable federal RFG requirements is designed to assure that the small refiner provisions will not result in elimination of the “California enforcement exemption” in 40 CFR § 80.81. The California enforcement exemption would apply to the small refiner, so it would still be able to benefit from that provision.

The preexisting reporting requirements would be modified to reflect the revised approach towards qualifying small refiners.

Modifications to the CaRFG Phase 3 Predictive Model shown in Attachment III enable qualifying small refiners to use the Predictive Model to meet the small refiner CaRFG3 standards.