California Environmental Protection Agency

Air Resources Board

Staff Report

Proposed Amendments to the Small Refiner Volume Provisions in the Regulation Limiting the Aromatic Hydrocarbon Content of California Motor Vehicle Diesel Fuel

Release Date: June 10, 1994

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California Environmental Protection Agency
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STAFF REPORT: INITIAL STATEMENT OF REASONS

Public Hearing to Consider Amendments to the Small Refiner Volume Provisions of the Regulation Limiting the Aromatic Hydrocarbon Content of California Motor Vehicle Diesel Fuel

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SUMMARY AND RECOMMENDATIONS

1. Introduction

In this report, we are proposing that the Air Resources Board (ARB or Board) consider amendments to the small refiner provisions in the regulation limiting the aromatic hydrocarbon content of diesel fuel sold for use in California motor vehicles (Title 13, California Code of Regulations, section 2282). One amendment would allow small refiners an option to the current limits on the allowable production volumes of diesel fuel subject to an aromatic hydrocarbon content of 20 percent. The second amendment would delay the effective date of the small refiner volume limits now in the regulation from October 1, 1994 to January 1, 1995 for small refiners not subject to the 20 percent aromatic hydrocarbon content standard until October 1, 1994. An alternative volume limit would apply to these small refiners in the fourth quarter of 1994. We are not proposing any changes to the requirements for small refiners to meet the 20 percent aromatic hydrocarbon content limit by October 1, 1994. These proposed amendments do not represent any fundamental change in the original regulation. Rather, they are "fine tuning" adjustments based on recent analyses.

In 1988, the Board adopted regulations requiring limits on the sulfur and aromatic hydrocarbon content of motor vehicle diesel fuel. All refiners, regardless of size, are meeting the requirements for sulfur content (500 parts per million by weight). With respect to aromatic hydrocarbon content, the regulation required that large refiners meet a 10 volume percent aromatic hydrocarbon content standard by October 1, 1993. Independent refiners are allowed to meet a less stringent 20 volume percent aromatic hydrocarbon content standard for up to three years. Small refiners are required to produce a 20 percent aromatic hydrocarbon content diesel fuel; however, this requirement could be delayed for some small refiners until October 1, 1994. Both independent and small refiners have their volume of 20 percent aromatic hydrocarbon content diesel fuel limited to historic production levels. For small refiners qualifying for a delay, these production volume limits become effective October 1, 1994.

The Board adopted the diesel fuel regulations to address California's serious air quality problems. While diesel-powered motor vehicles comprise only four percent of all vehicles, they contribute about 40 percent of the oxides of nitrogen (NOx) emissions from motor vehicles and about 60 percent of the particulate matter (PM_{10}) emissions from motor vehicles. In addition, diesel vehicles contribute 35 percent of total motor vehicle sulfur dioxide (SO_2) emissions. With the implementation of the regulations, we currently estimate the following emissions reductions: 70 tons per day of NOx (7 percent reduction), 20 tons per day of PM_{10} (25 percent reduction), and 80 tons per day of SOx (82 percent reduction). In addition, because particulate matter emissions from diesel-fueled vehicles include toxic or potentially

toxic air contaminants, reductions in PM_{10} emissions will also reduce emissions of toxic air contaminants.

2. *Why are we Proposing Changes to the Small Refiner Volume Provisions?*

When the diesel fuel regulations were adopted, the Board established a volume limit on the small refiners' production of 20 percent aromatic hydrocarbon content diesel fuel to reflect their historic production levels. The volume requirements were included in the regulation for two principal reasons. First, the Board intended to preserve the air quality benefits of the regulation by limiting the volume of diesel fuel meeting the less stringent limits. Second, the Board intended to prevent small refiners from expanding production as a result of the less stringent standard and gaining additional market share from other refiners, particularly those refiners producing a higher quality cleaner burning fuel.

Recent staff analyses, however, indicate that the current method for determining the limit on the small refiners' volumes may be more restrictive than necessary to preserve the Board's original intent. This is because the current volume limits for small refiners are substantially less than their base year production of motor vehicle diesel fuel and may actually prevent them from marketing diesel fuel at their historic levels. Based on these analyses, we believe an adjustment to the small refiner volume limit is appropriate.

3. *What are we Proposing?*

Small Refiner Volume Limits

We are proposing that small refiners be allowed to produce motor vehicle diesel fuel under their choice of either the existing volume limits or a new option. Under the new option, a small refiner would be permitted to produce 20 percent aromatic hydrocarbon content diesel fuel at an annual volume equal to its historic production of distillates (motor vehicle diesel fuel and fuels produced for other non-vehicle uses), rather than the current 65 percent of historic distillate production.

This option would ensure that a small refiner would have the opportunity to sell 20 percent aromatic hydrocarbon content diesel fuel in volumes equal to its production of motor vehicle diesel fuel during the years used to calculate the small refiners' historic production. However, if a small refiner elects to use the proposed option, we propose that its total California distillate sales be limited. This latter requirement is designed to preclude a small refiner from using the higher volume to increase its total sales of motor vehicle diesel fuel while concurrently maintaining or expanding its other distillate markets (such as rail or marine diesel). If the proposal is adopted, small refiners would have the ability to decide how they wanted to produce distillate fuel, as all diesel or as some combination of diesel and other distillate, as long as the small refiner's California total distillate production did not

exceed historic levels. (This would not, however, preclude the small refiner from producing additional volumes of 10 percent aromatic hydrocarbon content diesel fuel.)

Small Refiner Volume Limit During Fourth Quarter of 1994

The existing regulation does not expressly state how the volume limit is to be applied in the fourth quarter of 1994 where the small refiner was provided an exemption from the volume limits during the first three quarters of 1994. We are proposing an amendment which would have the effect of delaying the existing exempt volume limits for these refiners until January 1, 1995. During the fourth quarter of 1994 the volume of motor vehicle diesel fuel these small refiners could produce at the 20 percent aromatic hydrocarbon content would be limited to the quarterly volume limits imposed on these small refiners by the Executive Officer during October 1, 1993 to October 1, 1994.

These proposed amendments will help to avoid any market adjustments from occurring during the fall harvesting season, a period of peak demand. In addition, by moving the effective date of the exempt volume limits, distributors and end-users will have an additional three months to make any needed marketing adjustments.

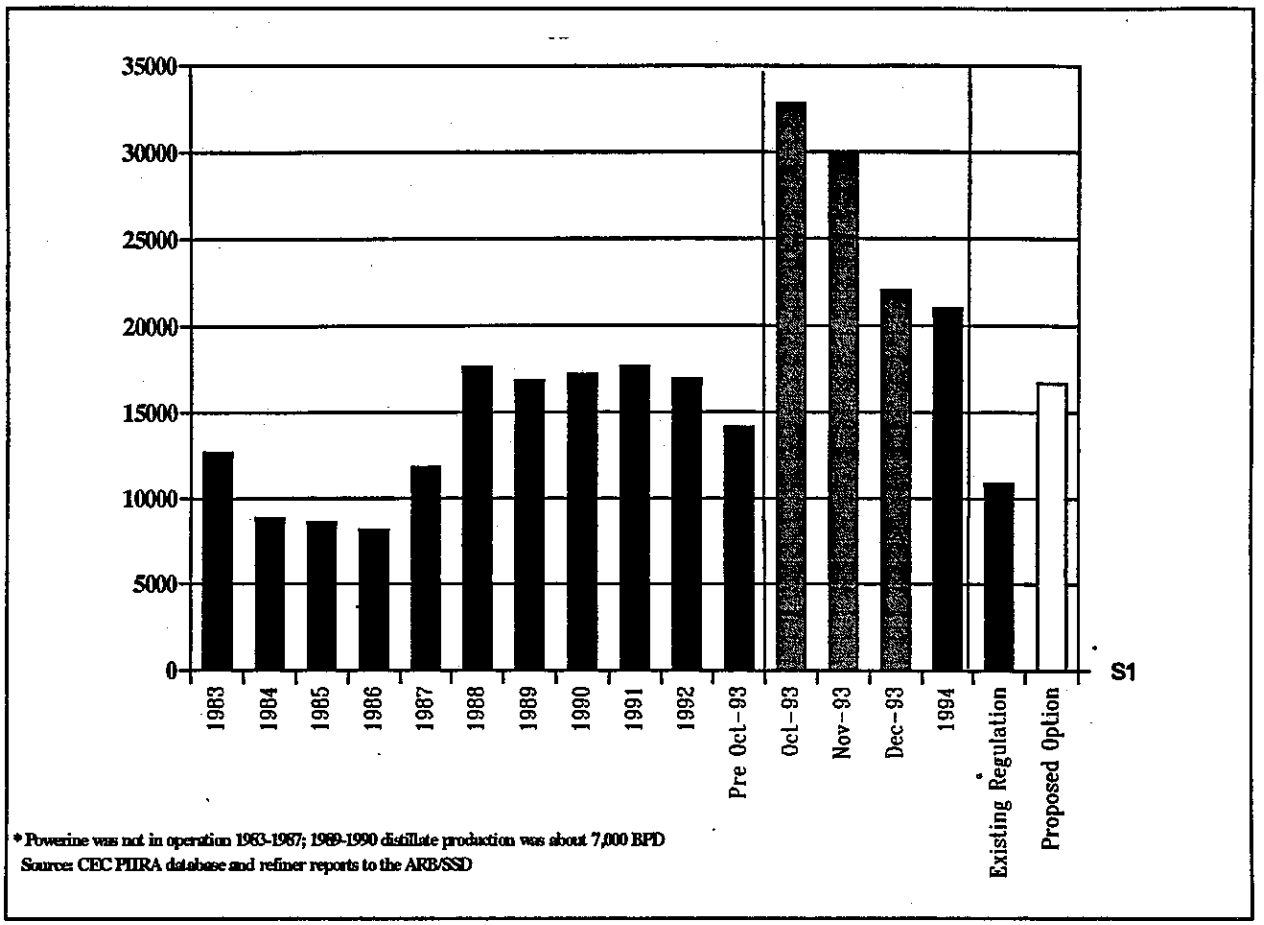
4. What are the Effects of the Proposed Changes?

We believe that these proposed amendments do not represent any fundamental change to the overall regulation. The proposed adjustment to small refiners' allowed volumes of 20 percent fuel represents a more equitable volume limitation that more closely reflects historic production by the small refiners. The proposed change to move the effective date of the volume limitation is, we believe, prudent to avoid any market and distribution system adjustments during a period of peak fuel demand.

The proposed amendments under consideration would allow the four small refiners producing motor vehicle diesel fuel (Kern, Paramount, Powerine, and Witco) to increase their production of 20 percent aromatic hydrocarbon content diesel fuel from about 11,000 barrels per day (BPD) to about 16,700 BPD. Currently, these four small refiners produce about 21,000 BPD, and they produced as much as 32,000 BPD in October 1993 when other refiners faced production difficulties. Historically, from 1983 to mid 1993, these four small refiners' diesel fuel production varied from a low of 8,200 BPD in 1986 to a high of 17,700 BPD prior to September 1993. Figure 1 shows the distillate production over time for the four small refiners who are still marketing motor vehicle diesel fuel, the existing regulation volume limits, and our proposed option. This figure illustrates that the volumes allowed under the staff proposal compare favorably with the amount of distillate produced by small refiners prior to October of 1993.

Under both the current regulation and the proposed amendments, California motor vehicle diesel fuel produced by Kern, Paramount, and Powerine and shipped from their

Figure 1
Combined Distillate Production
for Kern, Paramount, Powerine*, and Witco
(Barrels per Day)



refineries after September 30, 1994, will be subject to the 20 percent aromatic hydrocarbon content limit. The Executive Orders granting the three small refiners suspensions through September 30, 1994 clearly state that the suspensions apply to diesel fuel produced by the small refiner and supplied from the refinery in each of the four quarters up to the allowable suspension volume. Therefore, diesel fuel which is shipped from the refineries prior to October 1, 1994 but remains in the downstream distribution system after September 30, 1994 will continue to conform with the regulation. Downstream storage tanks will not have to be "turned" by October 1, 1994.

With these proposed changes, we expect that the marketing and distribution system will adjust in an orderly fashion. The changes would lower the chance of a difficult transition for independent marketers and end-users. The proposed amendments to increase small refiners' exempt volume is consistent with the Board's intent when it adopted the regulation.

We do recognize, however, that even with the proposed changes some marketers will have to rely more on large and independent refiners for diesel fuel.

Large and independent refiners are not expected to be significantly affected by the proposed changes. The increase in the exempt volume limits resulting from the proposed changes constitutes only about four percent of the California motor vehicle diesel fuel market. The large and independent refiners' sales of both vehicular diesel fuel and other distillates would be protected by the volume limitation placed on small refiners for this pool of products.

5. *How Were the Proposals Developed?*

In developing options for revising the treatment of small refiners' diesel fuel, we consulted with the Western States Petroleum Association, the Western Independent Refiner's Association, the California Independent Oil Marketer's Association, and other interested parties. The staff held a public workshop on April 21, 1994 and held numerous meetings with interested parties.

6. *Recommendations*

We recommend that the Board adopt the proposed amendments to the regulation limiting the aromatic hydrocarbon content of diesel fuel sold by small refiners for use in motor vehicles in California.

II

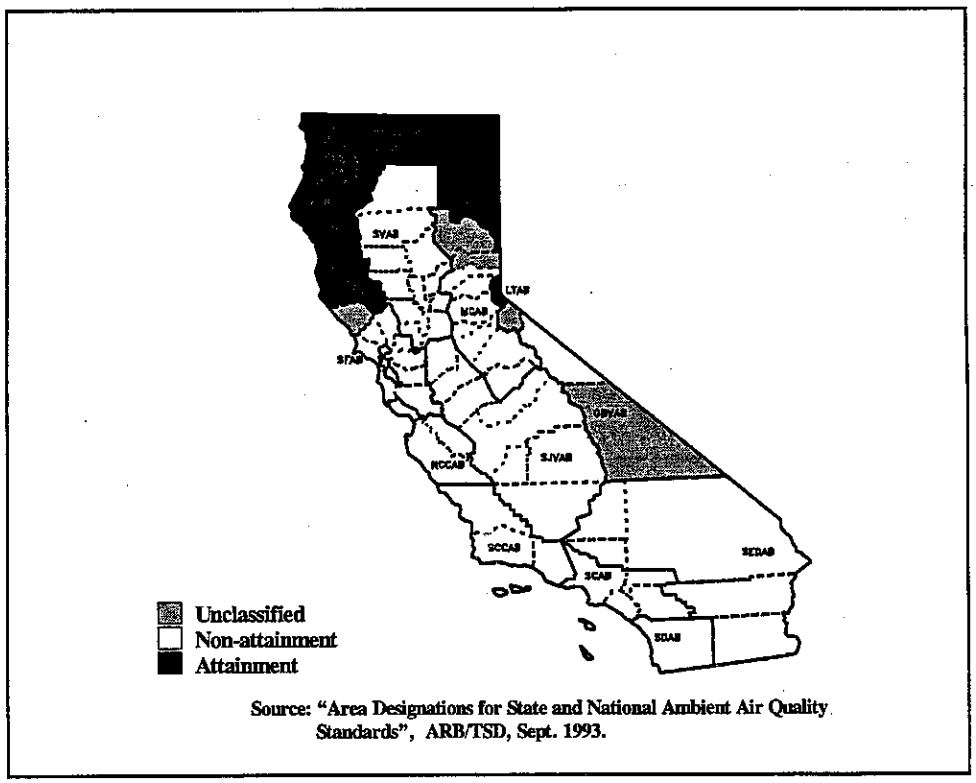
BACKGROUND

1. Severity of the California Air Pollution Problem

California experiences severe air pollution problems compared to other states in the nation. These air pollution problems threaten our health, property, and environment.

Based on 1992 data, nine air basins are classified as non-attainment for the federal ambient air quality standard for ozone. From a national perspective, 75 percent of the nationwide exposure to unhealthy levels of ozone occurs in California. The more stringent California ozone standard is still exceeded in 10 out of the 14 air basins (see Figure 2).

Figure 2
Most of California Exceeds the Air Quality Standards for Ozone



Source: "Area Designations for State and National Ambient Air Quality Standards", ARB/TSD, Sept. 1993.

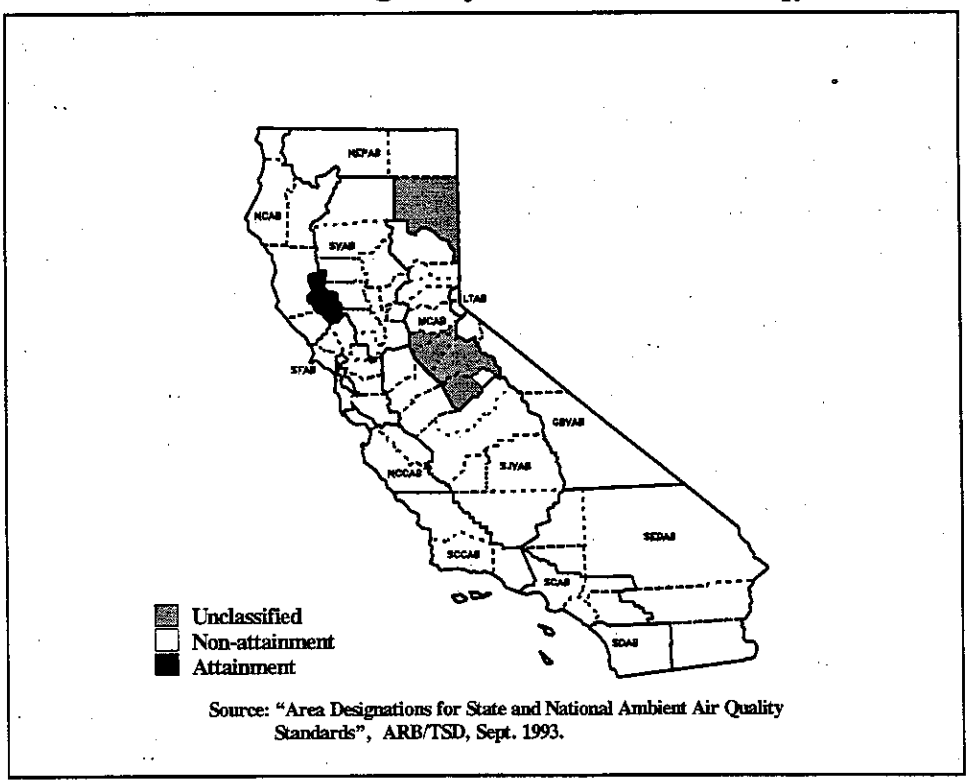
Ozone is a strong irritant that can cause constriction of the airways. In addition to shortness of breath, it may aggravate or worsen existing respiratory diseases, such as

emphysema, bronchitis, and asthma. Chronic exposure to ozone can damage deep portions of the lungs. Short-term exposure to elevated levels of ozone over an hour or two can add stress to the body.

Exposure to ozone can result in substantial damage to vegetation. It has been estimated that agriculture, California's number one industry, may be losing more than $300 million each year to air pollution, primarily because of the effects of ozone. Scientists have estimated that the average cotton yield loss from ozone during 1988 was about 16 percent, with the highest losses estimated at about 44 percent in the southern San Joaquin Valley. Researchers at the University of California found that Thompson seedless grapes produced 25 percent less yield in the San Joaquin Valley due to air pollution; Zinfandel grapes grown in Riverside County produced 60 percent less yield.

The federal standards for particulate matter less than 10 microns (PM_{10}) are exceeded in five of the state's air basins while the state standard for PM_{10} is violated in virtually the entire state (see Figure 3). The state standard for PM_{10} was exceeded 70 percent of the time that it was monitored in the South Coast Air Basin and 69 percent of the time monitored in the San Joaquin Valley Air Basin.

Figure 3
Virtually All of California
Exceeds Air Quality Standards for PM_{10}



Source: "Area Designations for State and National Ambient Air Quality Standards", ARB/TSD, Sept. 1993.

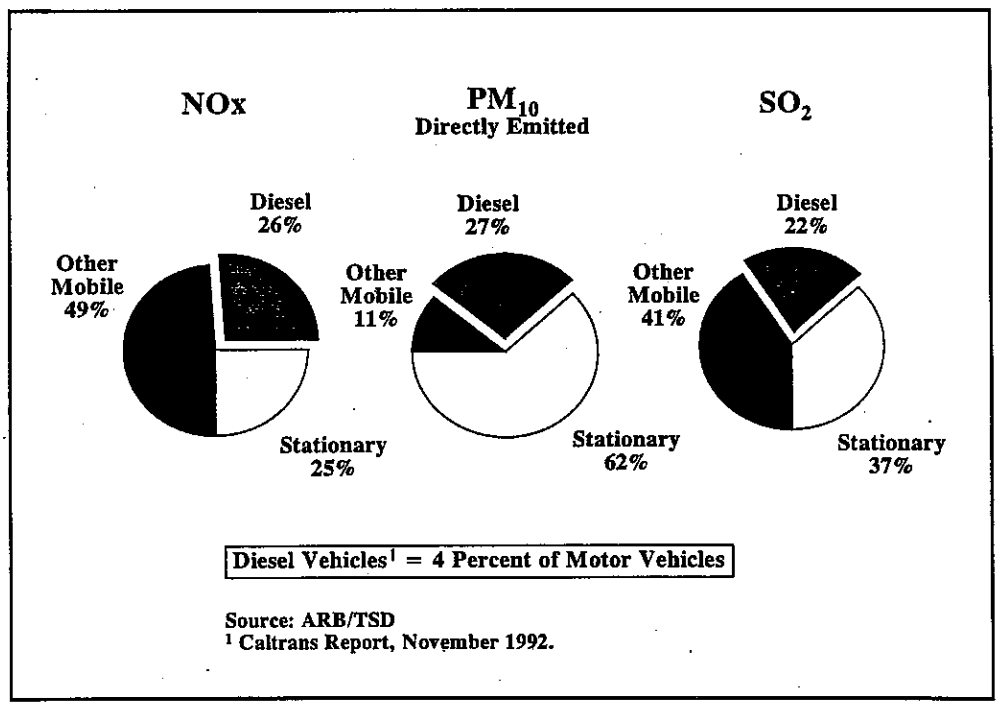
Exposure to PM_{10} interferes with the respiratory system, and acute daily exposures have been associated with increased mortality and respiratory illnesses as well as increases in asthma attacks and increases in hospital and emergency room visits.

2. Contribution of Diesel-Powered Motor Vehicles to the California Air Pollution Problem

Diesel-fueled motor vehicles contribute significantly to California's air pollution problems and are a source of a variety of air pollutants. Diesel-fueled motor vehicles emit the following species of air pollutants: oxides of nitrogen (NOx), fine particulate matter (PM_{10}), sulfur dioxide (SO_2), Volatile Organic Compounds (VOC), carbon monoxide, toxic substances (benzene, arsenic, nickel, polynuclear aromatic hydrocarbons (PAH), PAH derivatives, aldehydes). PM_{10} emissions include the well-known "black soot" which is formed as a product of diesel fuel combustion. Black soot contains carbonaceous soot, adsorbed organic compounds, sulfates, and nitrates.

In 1990, on-road and off-road emissions from diesel-fueled vehicles contributed approximately 26 percent of NOx emissions and 27 percent of directly emitted PM_{10} emissions

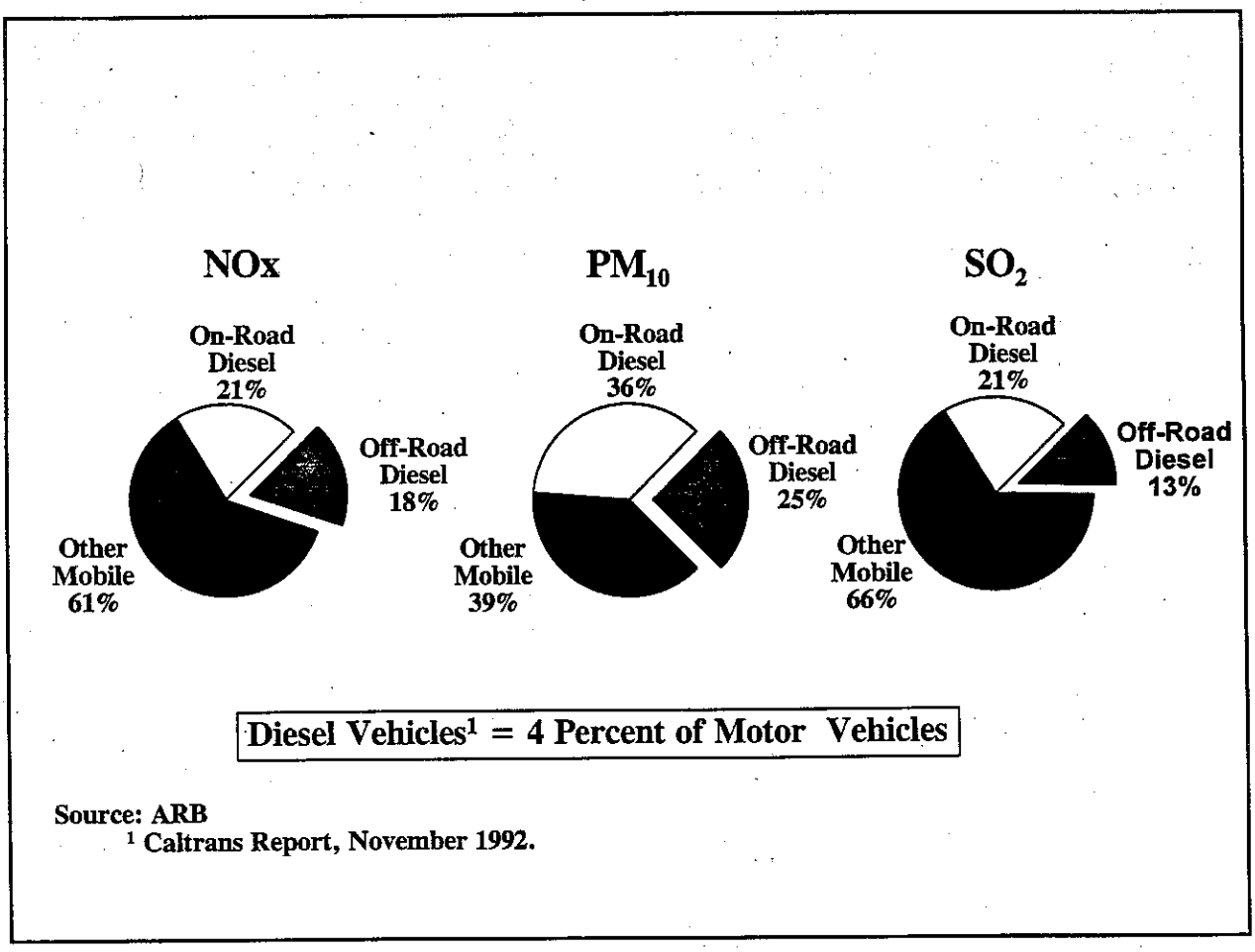
Figure 4
Emissions from Diesel Vehicles are Significant Part of Statewide Emissions (1990)



from all sources (see Figure 4). Diesel-fueled vehicles also contributed to 22 percent of the total statewide emissions of SO_2 even though diesel fuel sulfur content has been limited in the South Coast Air Basin since 1985.

Although diesel-fueled vehicles contribute significantly to statewide emissions as compared to other mobile and stationary sources, diesel-fueled vehicles comprise only about four percent of all motor vehicles. Figure 5 shows the contribution of diesel-powered motor vehicles to mobile source emissions. In 1990, on-road and off-road emissions from diesel-fueled vehicles contributed about 40 percent of NOx emissions and 60 percent of PM_{10} emissions statewide. In addition to NOx and PM_{10}, diesel-fueled vehicles contributed 35 percent of total mobile source emissions of sulfur dioxide (SO_2). Because particulate matter emissions from diesel-fueled vehicles contain toxic or potentially toxic air contaminants,

Figure 5
Emissions from Diesel Vehicles
Are Significant Part of Mobile Source Emissions
(1990)



Source: ARB
[1] Caltrans Report, November 1992.

reductions in PM_{10} emissions will also reduce emissions of toxic air contaminants.

3. The ARB's Motor Vehicle Diesel Fuel Regulations

The ARB's diesel fuel regulations provide that California motor vehicle diesel fuel sold on or after October 1, 1993 must meet a sulfur content not exceeding 500 parts per million by weight and an aromatic hydrocarbon content limit of 10 percent by volume for large refiners or 20 percent for small refiners. Independent refiners may meet the less stringent small refiner provisions during the first year, with the possibility for a two year extension. The requirements of the diesel fuel regulations are summarized in Table 1 below.

Table 1
Requirements of California Motor Vehicle Diesel Fuel Regulations

o Apply to On-Road and Off-Road Vehicles	
o Specifications	
- Sulfur Content*	**500 ppmw**
- Aromatic Hydrocarbon Content (max)	
Large Refiners	**10% by volume**
Independent Refiners**	**20% by volume**
Small Refiners	**20% by volume**
o Allows for Certification of Equivalent Formulations	
o Implementation Date	**October 1, 1993**
o Implementation for Small Refiners Subject to Suspension of Regulations	**October 1, 1994**

* Required in South Coast Air Basin for large refiners since 1985, for small refiners since 1989.
** 20 percent limit applies to independent refiners up to 1996, but only under certain conditions.

To provide refiners with additional flexibility, the Board adopted an alternative means for refiners to comply with the aromatic hydrocarbon content requirements. The regulation allows large refiners to produce diesel fuel above 10 percent aromatic hydrocarbon content (or 20 percent for small and independent refiners) if the alternative fuel provides emissions reductions which are equivalent to the 10 percent standard (or 20 percent standard for small

and independent refineries). Most California refiners have elected to produce fuels that meet the alternative certification provisions.

Small refiners are also allowed a one year suspension, until October 1, 1994, to comply with the sulfur and aromatic hydrocarbon content limits under certain conditions. Additionally, if independent refiners invest in hydrodearomatization processes, they may be allowed up to two more years to produce diesel fuel under the small refiners' limit.

4. Regulatory Provisions for Small Refiners

To ensure against unfair relaxation of the diesel fuel standards, the Board adopted specific criteria which a refiner must meet to be considered a small refiner. The criteria include:

(A) A small refiner's California refinery has, and at all times had since January 1, 1978, a crude oil capacity of not more than 50,000 barrels per stream day;

(B) The refinery has not been at any time, since September 1, 1988, owned or controlled by any refiner that at the same time controlled refineries in California with a total combined crude oil capacity of more than 50,000 barrels per stream day; and

(C) The refinery has not been at any time, since September 1, 1988, owned or controlled by any refiner that at the same time owned or controlled refineries in the United States with a total combined crude oil capacity of more than 137,500 barrels per stream day.

Table 2 shows the small refineries that were operating in California during 1988 and those operating today. In 1988, 14 refineries could have qualified under the small refiner provision. Today only four small refiners are producing motor vehicle diesel fuel.

Small refiners are limited to the quantity of motor vehicle diesel fuel that they can produce at the 20 volume percent aromatic content limit. Under the regulation, this specified quantity of diesel fuel is referred to as the small refiners' "exempt volume." For each small refiner, the exempt volume is calculated as 65 percent of the average of the three highest annual production volumes of "distillate fuel" that each refinery produced during the base years 1983-1987, as they were reported in annual reports to the California Energy Commission (CEC). In these reports, distillate fuel includes the refiner's production of No. 1, No. 2, No. 4 diesel fuel and No. 1 and No. 2 fuel oil, whether sold in California or exported.

For refineries that were shut down for two or more years during 1983-1987, the Board added a provision allowing the refiner to calculate the exempt volumes based on 65 percent of their reported distillate fuel produced in 1989 and 1990. Powerine is the only small refiner who qualified for this alternative calculation of its exempt volume limits.

Table 2
California Small Refiners Producing Distillates in 1988 and 1994

Small Refiner (Crude Capacity, BPD)	Operating in 1988	Operating in 1994	
		Produce California M.V. Diesel	Produce for Other Markets
Edgington Oil (41,600)	X		
Fletcher (29,500)	X		
Golden West (40,600)	X		
Huntway (Benicia) (8,400)	X		X
Huntway (Wilmington) (5,000)	X		X
Kern Oil (21,400)	X	X	X
Macmillan (Chemoil) (14,000)	X		
Newhall (22,500)	X		
Paramount (48,000)	X	X	X
Powerine (44,120)	X	X	X
San Joaquin (24,300)	X		X
Sunland (12,000)	X		X
Witco(10,600)	X	X	X

Source: CEC PIIRA database (EIA 810 form)
X -- Denotes in operation

The exempt volume provisions were designed to limit the volume of the small refiners' production of 20 volume percent aromatic hydrocarbon content diesel fuel to their historic production level of California motor vehicle diesel fuel. The Board based the exempt volumes on the CEC reports because these reports provided fixed, preexisting figures that could not be modified to maximize production of diesel fuel subject to the less stringent 20 volume percent

aromatic hydrocarbon content limit. Because the CEC reports included distillate fuel that was not sold for use in California diesel-fueled vehicles, the Board adjusted the reported volumes to exclude that non-vehicular fuel. The Board chose to apply a single adjustment factor for all small refiners because it would have been extremely difficult to accurately identify the proportion of each small refiner's reported distillate fuel production that went to in-state vehicular uses. The adjustment factor was based on the industry-wide average proportion of California motor vehicle diesel fuel to all reported distillate fuel. This proportion, based on a survey of both large and small refiners, was 65 percent.

Under certain conditions, small refiners who were in the process of installing hydrotreating capacity to meet the sulfur content limits were granted a temporary suspension of the sulfur and aromatic hydrocarbon content and volume requirements. Three small refiners--Kern Refining, Paramount, and Powerine--are not subject to the requirements of the diesel fuel aromatic hydrocarbon content regulation until October 1, 1994. These three small refiners are meeting the sulfur content requirements of the regulation. Another small refiner--Witco--has been producing a 20 percent aromatic hydrocarbon content complying diesel fuel since October 1, 1993. San Joaquin Refining, Huntway, Sunland, and Macmillan have not produced any motor vehicle diesel fuel to meet the California regulations.

5. The Board's Intent in Adopting the Small Refiner Provisions

The public record of the November 1988 Board hearing shows that the ARB weighed several factors in adopting the small refiner provisions of the diesel fuel regulations. Clearly, the Board was sensitive to the unique position of the small refiners. Small refiners, with their limited production capabilities, lacked a strong financial base to make the significant capital investment needed to comply with the standards imposed on large refiners. Accordingly, the Board was concerned that small refiners would be forced out of business. In addition, the Board understood that the small refiners' share of the diesel fuel market in California probably would not increase in the future. Also, the Board recognized that the cost for small refiners to meet the sulfur limits was expected to be comparable to the cost for large refiners to meet both the sulfur and the 10 percent aromatic hydrocarbon content limit. Therefore, the Board provided small refiners a less stringent aromatic hydrocarbon content standard.

Recognizing that allowing less stringent standards for small refiners would result in an increase in emissions and could potentially shift the economic playing field within the refining industry, the Board sought to limit the volumes of diesel fuel which small refiners could produce under the less stringent standards. To ensure fairness for all sectors, the Board adopted the small refiner provisions to balance several competing concerns: the small refiners' need to produce at less stringent limits, the need to maintain fairness to independent and large refiners, and the need to preserve the air quality benefits of the regulation.

6. Benefits of the Motor Vehicle Diesel Fuel Regulations

The motor vehicle diesel fuel regulations result in significant reductions in exhaust emissions from diesel-powered motor vehicles and provide several air quality benefits. Table 3 shows the air pollutant benefits of the regulations. When fully implemented, the NOx emissions will be reduced by about 70 tons per day (7 percent reduction), the directly emitted PM_{10} emissions will be reduced by about 20 tons per day (25 percent reduction), and the SO_2 emissions will be reduced by about 80 tons per day (82 percent reduction). In addition, the reductions of directly emitted PM_{10} emissions also reduce exposure to toxic or suspected toxic air contaminants.

Table 3
Criteria and Toxic Pollutant Benefits of the Diesel Fuel Regulations
(1995)
(tons/day)

Pollutant	Sulfur Regulation	Aromatic Regulation	Total
Sulfur Dioxide (SO_2)	80	0	80
Particulate Matter (PM_{10})	5	15*	20
Oxides of Nitrogen (NOx)	0	70	70

Source: ARB/SSD/TSD
* Includes air pollutant benefits for toxic or suspected toxic air contaminants

The air quality benefits of these regulations will contribute significantly to bringing California air basins into attainment with the federal air quality standards. In 1994, the United States Environmental Protection Agency (USEPA) proposed a Federal Implementation Plan (FIP) for three areas of California: the South Coast Air Basin, Sacramento Planning area, and Ventura County Air Pollution Control District. The FIP contains many control measures to bring these three areas into attainment for the federal ambient air quality standards. In the FIP, the USEPA is relying on the substantial benefits of the California diesel fuel regulations.

7. Cost of the Motor Vehicle Diesel Fuel Regulations

Table 4 shows the cost and cost-effectiveness of the regulations. In 1988, we estimated that the incremental cost to produce low aromatic hydrocarbon and low sulfur content diesel fuel was about 11 to 12 cents per gallon. In early 1993, we reassessed our projections of the cost to produce diesel fuel and found it would be less than six cents per gallon. This is approximately 50 percent less than our initial projections in 1988 when the Board adopted the regulations.

Table 4
Cost and Cost-Effectiveness of Diesel Fuel Regulations

	1988 Estimate	Estimate at Implementation (1993)
Capital Cost	**300 million**	**150 million**
Unit Production Cost	**11 to 12 cents/gal**	**< 6 cents/gal**
Cost-Effectiveness*	**6.9 $/lb***	**2.6 $/lb**

Source: 1988 staff report/ARB/SSD

* The cost-effectiveness is estimated as the total cost of the regulation divided by the sum of NOx and PM emission reductions.

The reduction in cost of compliance represents about a 50 percent reduction of cost-effectiveness (dollars per pound of pollutant reduced) from original estimates. There are two major reasons for the reduction in cost. First, refiners are taking advantage of the alternative compliance option that allows for the certification of equivalent diesel fuel formulations that are less expensive for them to produce. Second, the cost is declining because of the emergence of new technologies for the production of cleaner burning diesel fuel. These new technologies have allowed refiners to substantially reduce their capital investments to comply with the regulations. Both factors are providing refiners with much more operating flexibility, and thus the opportunity to lower their production cost. The cost and cost-effectiveness compare favorably to a number of other motor vehicle and stationary source programs being implemented in the state (see Table 5).

Table 5
The State's Diesel Fuel Program
is Cost-Effective Compared to Other Control Measures

Control Measures	Pollutants	Cost-Effectiveness ($/lb)
Diesel Aromatic HC	NOx+PM	2.6
Phase 2 RFG	ROG+NOx+CO	4
Typical Vehicle Controls	ROG+NOx	up to 5
Typical Stationary Source	ROG+NOx	5
Marginal Stationary Source	ROG+NOx	11

Source: ARB/SSD

III

PROPOSED AMENDMENTS TO THE SMALL REFINER VOLUME PROVISIONS

We are proposing that the Board consider amending the small refiner volume provisions of its regulation limiting the aromatic hydrocarbon content of motor vehicle diesel fuel regulation (Title 13, California Code of Regulations, Section 2282). The following is a discussion of the proposed amendments.

1. Proposed Amendments

We are proposing the following specific amendments to the regulation:

A. *Establish a new option that would allow small refiners to produce 20 percent aromatic hydrocarbon content diesel fuel up to 100 percent of their base-year production levels of distillate fuel.*

We are proposing that small refiners be allowed to produce motor vehicle diesel fuel under their choice of either the existing "exempt volume" requirements or a new option. Under the new option, a small refiner's exempt volume limit would be equal to the small refiner's total historic production of distillates (motor vehicle diesel fuel as well as other fuel produced for non vehicular uses) instead of 65 percent of that volume. However, if a small refiner elects to use the proposed option, we propose that its total California distillate sales be limited to the historic volume. Such limits would not restrict a small refiner's production of 10 percent aromatic hydrocarbon content or equivalent diesel fuel.

B. *Delay the effective date of the exempt volume limitations from October 1, 1994 to January 1, 1995 for most small refiners; during October 1, 1994 through December 31, 1994, limit these small refiners' production of 20 percent aromatic hydrocarbon content diesel fuel to their current quarterly "suspension volumes".*

We propose that the effective date of the exempt volume limits for small refiners now qualifying under a suspension of the sulfur and aromatic hydrocarbon content requirements be delayed 3 months to a period of low diesel fuel demand. However, from October 1, 1994 through December 31, 1994, we propose that the volume of diesel fuel these small refiners are permitted to produce subject to the 20 percent aromatic hydrocarbon standard be limited to the quarterly volume limit imposed by the Executive Officer in connection with issuance of the suspension orders. We do not propose delaying the October 1, 1994 deadline for all small refiners to produce 20 percent or equivalent aromatic hydrocarbon content fuel.

Appendix C contains a detailed description of the proposed amendments in both of these areas.

2. Rationale for the Proposed Amendment to Small Refiner Exempt Volume Limits

Under the present regulation, for each small refiner, the exempt volume is equal to 65 percent of the average of the three highest annual production volumes of distillate fuel at the small refiner's refinery during their base years.

Recent staff analyses suggest that the current method for determining the limit on the small refiners' volumes may be more restrictive than necessary to preserve the Board's original intent. It now appears that the small refiners' historic production of motor vehicle diesel fuel was substantially more than 65 percent of the reported distillate fuel production volumes in the base years. This means that the current exempt volumes for small refiners are substantially less than their base year production of motor vehicle diesel fuel and may actually prevent small refiners from marketing historic quantities of diesel fuel. Based on this analysis, we believe that the Board should provide small refiners the option to make an adjustment to the exempt volume.

The option we propose would ensure that a small refiner has the opportunity to sell 20 percent aromatic hydrocarbon content diesel fuel in volumes equal to its production of motor vehicle diesel fuel during the base years. The limit on total California distillate production is designed to preclude a small refiner from using the higher exempt volumes to increase its total sales of motor vehicle diesel fuel while concurrently maintaining or expanding its other distillate markets (such as rail or marine diesel). If the proposed option is adopted, small refiners would have the ability to decide how they wanted to produce distillate fuel, all diesel or some combination of diesel and other distillate, as long as the total distillate production does not exceed historic levels. This would not, however, preclude the small refiner from producing additional volumes of 10 percent aromatic hydrocarbon diesel fuel.

Table 6 shows a comparison of small refiner volume limits under existing regulations and the volume limits that would be allowed under the proposed option.

Table 6
Comparison of Small Refiner Volume Limits
Under Existing Regulations and Proposed Option
(Barrels Per Day)

Company	Suspension Volume Limits* 10/93 - 10/94	Current** Production March 1994	Exempt Volume Limits*** October 1994	Proposed Optional Volume Limits
Kern	7,826	6,500	3,595	5,531
Paramount	11,700	8,100	2,370	3,646
Powerine	15,600	6,300	4,505	6,931
Witco	****	397	397	610
Total	35,126	21,297	10,867	16,718

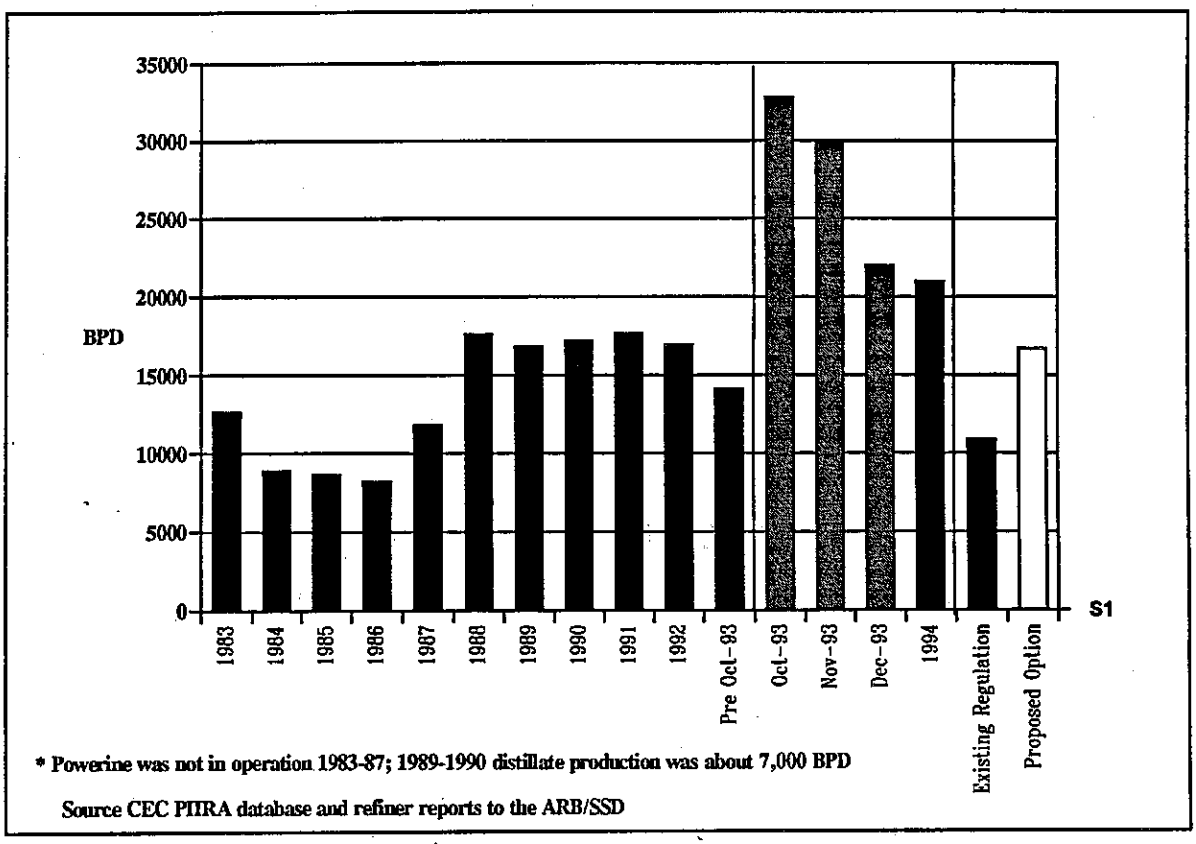
* Volume limits for small refiners qualifying for a suspension from the aromatic hydrocarbon content limit until October 1, 1994.
** Estimated by ARB/SSD
*** Executive Orders were issued identifying the exempt volume for all refiners but Paramount
**** Witco did not qualify for a suspension.
Note: Estimated California motor vehicle diesel fuel average demand at about 155,000 BPD
Source: ARB/SSD

As shown in Table 6, under the current regulations the volume limits of motor vehicle diesel fuel produced by the four small refiners would be limited to about 11,000 BPD--a reduction from current production of almost 50 percent. Under the proposed option, the volume limits could be raised to 16,700 BPD if all refiners selected this option and choose to produce all distillate as California motor vehicle diesel fuel. This would result in a more modest reduction from current production levels of about 20 percent. To put this into perspective, the small refiners' volume limits that go into effect on October 1, 1994 represent about seven percent of the motor vehicle diesel fuel market. Under the proposed option, that

value could increase to about 11 percent. This change would allow the four small refiners to market motor vehicle diesel fuel at about their historic contribution to the total California diesel fuel market (Today small refiner production accounts for about 14 percent of the motor vehicle diesel fuel market).

Figure 6 shows the cumulative production over time for the four small refiners still marketing motor vehicle diesel fuel, the existing volume limits, and the effect of staff's proposal on production limits. Historically, from 1983 to mid 1993, small refiner diesel fuel production varied from a low of 8,200 BPD in 1986 to 17,700 BPD prior to September 1993.

Figure 6
Combined Distillate Production
for Kern, Paramount, Powerine*, and Witco
(Barrels Per Day)



* Powerine was not in operation 1983-87; 1989-1990 distillate production was about 7,000 BPD

Source CEC PIIRA database and refiner reports to the ARB/SSD

3. Rationale for Proposed Amendment to Delay the Effective Date of the Exempt Volume Limits for Most Small Refiners and to Continue the "Suspension Volume" Limits During October 1, 1994 Through December 31, 1994.

Under the current regulation, the exempt volume limits for three small refiners will go into effect October 1, 1994. As table 6 shows, on October 1, 1994 the three small refiners' production volumes could be reduced from about 35,000 BPD (suspension volumes) to about 11,000 BPD (exempt volume limits). October is a high demand period for diesel fuel because of the fall harvesting season. Imposing the exempt volume limit on small refiners will necessitate some adjustments in the diesel fuel marketing system. Allowing small refiners to continue the "suspension" volume limits during the October through December 1994 period would delay the transition to lower volume limits to a period of low demand and it would make it easier for the market to adjust in a more orderly manner. Delaying the effective date of the small refiner volume limits would provide the market system an additional three months to plan for the reduction in small refiner volume.

IV

IMPACTS OF THE PROPOSED AMENDMENTS

1. Environmental Impacts of the Proposed Amendments

If the regulation is not amended, small refiners could cumulatively produce about 11,000 barrels per day of motor vehicle diesel fuel meeting the 20 percent aromatic hydrocarbon content standard. Under the proposed option, small refiners could increase the volume of 20 percent aromatic hydrocarbon content fuel to about 16,700 barrels per day. The additional 6,000 barrels per day of fuel subject to the 20 percent standard could result in emission increases of up to 1.3 tons per day in NOx and 0.4 tons per day in PM_{10}. This would constitute a significant adverse environmental impact.

We have sought to identify any feasible mitigation measures and alternatives that would significantly reduce any adverse emissions impact. Prior to selecting the proposed option we evaluated several alternatives. Small refiners have requested that the volumes allowed to be produced meeting the 20 percent aromatic hydrocarbon limit be increased beyond staff's proposal to about 35,126 BPD. We concluded that this would be inappropriate because of environmental concerns and allowing such volumes would go beyond the Board's original rationale for the small refiner provisions. The alternative of maintaining the current provisions, although it would avoid the adverse environmental impacts, would effectively limit small refiners production of 20 volume percent aromatic hydrocarbon content diesel fuel to a level that is below their historic production of motor vehicle diesel fuel. The substantial adverse economic impact on the small refiners that will result from the existing regulation is discussed below in the section titled, "Impacts of Maintaining the Current Regulation." We believe that the need to avoid these economic impacts is compelling. We could not identify an alternative that would reduce the adverse environmental impacts without endangering the economic viability of the small refiners.

We note, however, that we do not expect significant changes in the emission benefits of the regulation as they were estimated in 1988. In the 1988 Staff Report, we estimated the potential volume of small refiners' motor vehicle diesel fuel under the exemption to be at about 19,000 barrels per day. The benefits of the diesel regulations were estimated on the assumption that about 19,000 barrels per day of motor vehicle diesel fuel will be produced at the 20 percent aromatic hydrocarbon content limit. The total volume of 20 percent aromatic hydrocarbon content fuel under the proposed option is about 2,300 barrels per day less than the volume estimated in 1988. Therefore, the originally anticipated overall benefits of the regulation will not be affected.

2. Economic Impacts of the Proposed Amendments

Small Business Impacts of the Proposed Amendments

Government Code Section 11342 *et seq.* requires the ARB to discuss adverse effects on small businesses that would have to comply with proposed regulation amendments. The statutes explicitly exclude all refiners from the definition of "small business."

The proposed amendments will have no adverse impacts on small businesses. However, we expect an indirect beneficial impact for independent marketers resulting from the proposed amendments to the regulation limiting the aromatic hydrocarbon content of diesel fuel. This is because, under the proposed amendments, more diesel fuel from small refiners will likely be available for independent marketers. Because most of the small refiners' diesel production is marketed by independent marketers, the proposed amendments may provide additional volumes of small refiner diesel to independent marketers. This would result in an indirect benefit to independent marketers as additional small refiner diesel would provide more stability in available supply of the diesel product.

Cost Impacts of the Proposed Amendments

We expect that small refiners' production costs will be lowered by the proposed amendments. Under the amendments, small refiners will be able to increase their production of 20 percent aromatic hydrocarbon content motor vehicle diesel by approximately 6,000 barrels per day. Therefore, the annualized capital cost associated with complying with the regulation will be spread out over a higher volume of diesel fuel sold. The end result is lower unit production cost.

Other Impacts of the Proposed Amendments

We believe that these amendments do not represent any fundamental change to the overall objectives of the regulation. The proposed amendments would essentially maintain the "status quo" with respect to small refiner production of diesel fuel through the end of this year. Small refiners have assured us that they are working diligently to begin production of 20 percent aromatic hydrocarbon content diesel fuel by October 1, 1994.

These amendments are also intended to address concerns expressed by farmers and independent oil marketers regarding small refiner volumes. The small refiners and some farmers and independent oil marketers have requested that the ARB amend the regulation to allow greater volumes of diesel fuel to be produced by the small refiners subject to the 20 percent aromatic hydrocarbon limit.

California motor vehicle diesel fuel produced by Kern, Paramount, and Powerine and

shipped from their refineries after September 30, 1994, will be subject to the 20 percent aromatic hydrocarbon content limit. The Executive Orders granting the October 1, 1993 through September 30, 1994 suspensions to the three small refiners clearly state that the suspensions apply to diesel fuel produced by the small refiner and supplied from the refinery in each of the four quarters up to the allowable suspension volume. Therefore, diesel fuel which is shipped from the refineries prior to October 1, 1994, but remains in the downstream distribution system after September 30, 1994, will continue to conform with the regulation (as long as the small refiner had not exceeded its suspension volume). Downstream storage tanks will not have to be "turned" by October 1, 1994.

The increase in volume limits for small refiners resulting from the proposed amendments constitutes only about four percent of the California motor vehicle diesel fuel market. The volume limitation placed on small refiners for 20 percent aromatic hydrocarbon content diesel fuel and, under the proposed option, on total California distillates, should assure that small refiners cannot use the regulation to expand their production above historical levels.

Impacts of Maintaining the Current Regulation

If the regulation is not amended, small refiners will have their production levels of 20 volume percent aromatic hydrocarbon content diesel fuel limited to a level that is below their historic production of motor vehicle diesel fuel. To maintain their historic market levels, the small refiners would likely need to produce some 10 percent or equivalent aromatic hydrocarbon content diesel fuel. However, their ability to do so is severely limited. Their other options would be to find markets for diesel fuel not subject to the aromatic hydrocarbon limits (such as marine or locomotive sectors), export out-of-state, or reduce production. The viability of these options vary by refiner.

Kern Refining (Bakersfield) faces the most difficult choices. Kern is geographically isolated so that it can only export by truck, which the company claims is uneconomical; further, Kern has no access to marine markets. Kern has historically operated at less than 80 percent of its design capacity. Any further reduction in operations could make operating Kern Refining uneconomical.

Of the two small southern California refiners, Paramount would be impacted more severely than Powerine. Under the existing regulation, Paramount's motor vehicle diesel fuel volume could be limited to about 2,370 BPD. Under the proposed option, Paramount's exempt volume could be increased from 2,370 BPD to 3,626 BPD, still less than their current 8,100 BPD production level.

Paramount claims that during the 1983-1987 period their production of distillates was significantly lower than their actual capability because of financial and operational problems, as well as the effects of a change in ownership. Even with the proposed option, Paramount claims that their production of motor vehicle diesel fuel would be reduced to levels which are

below historic production capability when the refinery functioned without operational difficulties. The reduced diesel production would require Paramount to significantly reduce its current share of the motor vehicle diesel fuel market in the South Coast Air Basin. If Paramount wants to retain the current production levels, it would have to either market out-of-state or supply the non-regulated market.

Under the proposed option, Powerine's limit on exempt volume would increase from 4,505 BPD to 6,931 BPD, which is very close to its current production. We expect that Powerine will only be marginally impacted and will probably market additional volumes out-of-state.

Some independent marketers and end users would continue to be supplied by small refiners, but at reduced volumes. They would, therefore, need to secure these volumes, previously supplied by small refiners, from large and independent refiners. This is especially true for the southern San Joaquin Valley. However, even with the proposed amendments, some current customers of small refiners will have to obtain fuel from other refiners.

3. Reaction of Affected Parties to the Proposed Amendments

We held a public workshop on April 21, 1994 and invited comments on small refiner issues. The three small refiners argued that their production of 20 percent aromatic hydrocarbon content diesel fuel should be limited only to their present capacity to produce low-sulfur diesel fuel because they might not be able to operate economically if the existing volume limits are maintained. A refiner's capacity represents its potential to produce products. Thus, the small refiners' capacity to produce diesel fuel is significantly higher than their actual production volumes during 1983-1987. The historic 1983-1987 capacity to produce diesel fuel for the four small refiners is about 22,000 BPD while their historic total diesel fuel production as distillate was about 15,300 BPD (includes 1989-1990 data for Powerine since they were not in operation in 1983-1987). We believe that granting the small refiners such a large production volume would represent a major departure from the Board's original intent in adopting the small refiner provisions.

Independent marketers and users of diesel fuel argued in favor of small refiners' volumes at high levels. Independent marketers have historically relied upon small refiners to supply significant portions of their diesel fuel.

The large refiners urged us to maintain the current provisions of the regulation, expressing concern that amending the regulation would set a poor precedent for the Phase 2 Reformulated Gasoline Regulations which are to be implemented in 1996. The large refiners also expressed confidence that, from a statewide perspective, the total supply throughout California by large, independents, and small refiners would satisfy demand even if no changes were proposed to the regulation. This point was not disputed by the small refiners. However, concerns were expressed about regional adjustments and about the more limited

supply that would be available from the small refiners.

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10. California Environmental Protection Agency - Air Resources Board, Executive Order G-857-1, Kern Oil & Refining Co., Suspension of the Provisions of Section 2281(a)(1) Title 13, CCR, Regarding the Sulfur Content of Vehicular Diesel Fuel, August 20, 1993.

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12. California Environmental Protection Agency - Air Resources Board, "Executive Order G-857-3, Powerine Oil Company, Suspension of the Provisions of Section 2281(a)(1) Title 13, CCR, Regarding the Sulfur Content of Vehicular Diesel Fuel," August 20, 1993.

13. California Environmental Protection Agency - Air Resources Board, "Executive Order G-858-1, Kern Oil & Refining Co., Application for Treatment as a Small Refiner Under Section 2282 of Title 13, CCR, Regarding the Aromatic Hydrocarbon Content of Vehicular Diesel Fuel," August 20, 1993.

14. California Environmental Protection Agency - Air Resources Board, "Executive Order G-858-3, Powerine Oil Company, Application for Treatment as a Small Refiner Under Section 2282 of Title 13, CCR, Regarding the Aromatic Hydrocarbon Content of Vehicular Diesel Fuel," August 20, 1993.

15. California Environmental Protection Agency - Air Resources Board, "Executive Order G-858-4, Witco Corp., Application for Treatment as a Small Refiner Under Section 2282 of Title 13, CCR, Regarding the Aromatic Hydrocarbon Content of Vehicular Diesel Fuel," August 20, 1993.

16. California Energy Commission, Fuels Report, P300-89-018, Sacramento, CA., December 1989.

17. Letters dated 8/20/93, 10/8/93, and 4/11/94 from James D. Boyd to Thomas L. Eveland of Kern Oil & Refining.

18. Letters dated 8/20/93 and 10/8/93 from James D. Boyd to Glenn C. Lingle of Paramount Petroleum.

19. Letters dated 8/20/93 and 10/8/93 from James D. Boyd to June M. Christman of Powerine Oil Company.

APPENDICES

APPENDIX A

PROPOSED REGULATION ORDER

PROPOSED REGULATION ORDER

Amend Title 13, California Code of Regulations, section 2282(b) and (e) to read as follows:

Section 2282. Aromatic Hydrocarbon Content of Diesel Fuel

(a) **Regulatory Standard.**

(1) On or after October 1, 1993, except as otherwise provided in this subsection (a), no person shall sell, offer for sale, or supply any vehicular diesel fuel unless:

(A) The aromatic hydrocarbon content does not exceed 10 percent by volume; or

(B) The vehicular diesel fuel has been reported in accordance with all of the requirements of subsection (d), and:

(i) The aromatic hydrocarbon content does not exceed the designated alternative limit, and

(ii) Where the designated alternative limit exceeds 10 percent by volume, the excess aromatic hydrocarbon content is fully offset in accordance with subsection (d); or

(C) The vehicular diesel fuel has been reported in accordance with all of the requirements of subsection (g)(7), and meets all of the specifications for a certified diesel fuel formulation identified in an applicable Executive Order issued pursuant to subsection (g)(6); or

(D) The vehicular diesel fuel is exempt under subsection (e) and:

(i) The aromatic hydrocarbon content does not exceed 20 percent by volume; or

(ii) The vehicular diesel fuel has been reported in accordance with all of the requirements of subsection (d), and

[a] The aromatic hydrocarbon content does not exceed the designated alternative limit, and

[b] Where the designated alternative limit exceeds 20 percent by volume, the excess aromatic hydrocarbon content is fully offset in accordance with subsection (d), treating all references in subsection (d) to 10 percent by volume as references to 20 percent by volume; or

(iii) The vehicular diesel fuel has been reported in accordance with all of the requirements of subsection (g)(7), and meets all of the specifications for a certified diesel fuel formulation identified in an applicable Executive Order issued pursuant to subsections (g)(6) and (g)(8).

(2) Subsection (a)(1) shall not apply to a sale, offer for sale, or supply of vehicular diesel fuel to a refiner where the refiner further processes the diesel fuel at the refiner's refinery prior to any subsequent sale, offer for sale, or supply of the diesel fuel.

(3) For the purposes of subsection (a)(1), each sale of diesel fuel at retail for use in a motor vehicle, and each supply of diesel fuel into a motor vehicle fuel tank, shall also be deemed a sale by any person who previously sold or supplied such diesel fuel in violation of subsection (a)(1).

(4) This subsection (a) shall not apply to a small refiner during the effective period of any suspension of the sulfur in diesel fuel limits issued pursuant to Section 2255(g).

(b) **Definitions.**

For the purposes of this section:

(1) "California nonvehicular distillate fuel" means all distillate fuel except for [A] vehicular diesel fuel, and [B] distillate fuel which is conspicuously identified as a fuel that is not to be consumed in California, and which is supplied from the refinery under circumstances that would lead a reasonably prudent refiner to believe the distillate fuel will be consumed outside California.

~~(1)~~ (2) "Chemical composition" means the name and percentage by weight of each compound in an additive and the name and percentage by weight of each element in an additive.

~~(2)~~ (3) "Designated alternative limit" means an alternative aromatic hydrocarbon limit, expressed in percent aromatic hydrocarbon content by volume, which is assigned by a producer or importer to a final blend of vehicular diesel fuel pursuant to subsection (d).

~~(3)~~ (4) "Diesel fuel" means any fuel that is commonly or commercially known, sold or represented as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM Standard Specification for Diesel Fuel Oils D 975-81, which is incorporated herein by reference.

(5) "Distillate fuel" and "residual fuel oil" have the same meanings as defined in Title 20, California Code of Regulations, section 1363.

(6) "Exempt total distillate fuel volume" means a small refiner's exempt volume determined in accordance with subsection (b)(7), without the 65 percent adjustment.

~~(4)~~ (7) "Exempt volume" means 65 percent of the average of the three highest annual production volumes of distillate fuel reported for a small refiner's California refinery in the period 1983 to 1987, inclusive, to the California Energy Commission as required by the Petroleum Industry Information Reporting Act of 1980 (Public Resources Code Sections 25350 et seq.); provided that for any small refiner that reported no distillate fuel production for two or more years in the 1983-1987 period and that has installed hydrotreating processes which allow the production of diesel fuel with a sulfur content of 500 parts per million or less, exempt volume may be calculated as 65 percent of the average annual production volumes of distillate fuel reported for the small refiner's California refinery for 1989 and 1990.

~~(5)~~ (8) "Executive Officer" means the executive officer of the Air Resources Board, or his or her designee.

~~(6)~~ (9) "Final blend" means a distinct quantity of diesel fuel which is introduced into commerce in California without further alteration which would tend to affect the fuel's aromatic hydrocarbon content.

~~(7)~~ (10) "Formulation" means the composition of a diesel fuel represented by a test fuel submitted pursuant to subsection (g).

~~(8)~~ (11) "Further process" means to perform any activity on diesel fuel, including distillation, treating with hydrogen, or blending, for the purpose of bringing the diesel fuel into compliance with the standards in subsection (a)(1).

~~(9)~~ (12) "Hydrodearomatization process" means a type of hydrotreating process in which hydrogen is used in the presence of heat, pressure, and catalysts to saturate aromatic hydrocarbons in order to produce low-aromatic hydrocarbon content diesel fuel.

~~(10)~~ (13) "Importer" means any person who first accepts delivery in California of vehicular diesel fuel.

~~(11)~~ (14) "Import facility" means the facility at which imported diesel fuel is first received in California, including, in the case of diesel fuel imported by cargo tank and delivered directly to a facility for dispensing diesel fuel into motor vehicles, the cargo tank in which the diesel fuel is imported.

~~(12)~~ (15) "Independent refiner" means any refiner who:

(A) Is not, and has not been since September 1, 1988, a small refiner;

(B) Owns or operates a refinery in California at which, in the third calendar quarter (July-September) of 1988, and in each calendar quarter thereafter, more than 70 percent of the crude oil input is obtained directly or indirectly from crude oil producers who contemporaneously do not control, are not controlled by, and are not under common ownership with, the owner or operator of the refinery;

(C) In the third calendar quarter (July-September) of 1988, and in each calendar quarter thereafter, directly or indirectly obtains more than 70 percent of the aggregated crude oil input at its refineries in the United States, from crude oil producers who contemporaneously do not control, are not controlled by, and are not under common ownership with, such refiner.

(D) In calendar year 1988 had more than 70 percent of its worldwide total gross sales, combined with the gross sales of entities which own, are owned by, or are under common ownership with the refiner, directly attributable to the wholesale distribution of petroleum products refined by the refiner or affiliated entity.

~~(13)~~ (16) "Motor vehicle" has the same meaning as defined in Section 415 of the Vehicle Code.

~~(14)~~ (17) "Polycyclic aromatic" means the sum of the concentrations of the compound types defined in paragraphs 3.8 through 3.12 of ASTM D 2425-83, which is incorporated herein by reference.

~~(15)~~ (18) (A) "Produce" means to convert liquid compounds which are not diesel fuel into diesel fuel. When a person blends volumes of blendstocks which are not diesel fuel with volumes of diesel fuel acquired from another person, and the resulting blend is diesel fuel, the person conducting such blending has produced only the portion of the blend which was not previously diesel fuel. When a person blends diesel fuel with other

volumes of diesel fuel, without the addition of blendstocks which are not diesel fuel, the person does not produce diesel fuel.

(B) Subsection ~~(b)(15)(A)~~ (b)(18)(A) notwithstanding, for the purposes of subsection (e) only, a small refiner who blends volumes of blendstocks which are not diesel fuel, or volumes of diesel fuel having an aromatic hydrocarbon content exceeding 20 percent by volume, with diesel fuel acquired from another person, in order to make diesel fuel having an aromatic hydrocarbon content not exceeding 20 percent by volume, shall be deemed to have produced the entire volume of the resulting blend and the person who initially converted nonvehicular compounds into the acquired diesel fuel has also produced the volume of acquired diesel fuel.

~~(16)~~ (19) "Producer" means any person who produces vehicular diesel fuel in California.

~~(17)~~ (20) "Refiner" means any person who owns, leases, operates, controls or supervises a refinery.

~~(18)~~ (21) "Refinery" means a facility that produces liquid fuels by distilling petroleum. A small refiner's refinery includes all bulk storage and bulk distribution facilities jointly owned or leased with the facility that produces liquid fuels by distilling petroleum.

~~(19)~~ (22) "Small refiner" means any refiner who owns or operates a refinery in California that:

(A) Has and at all times had since January 1, 1978, a crude oil capacity of not more than 50,000 barrels per stream day;

(B) Has not been at any time since September 1, 1988, owned or controlled by any refiner that at the same time owned or controlled refineries in California with a total combined crude oil capacity of more than 50,000 barrels per stream day; and

(C) Has not been at any time since September 1, 1988, owned or controlled by any refiner that at the same time owned or controlled refineries in the United States with a total combined crude oil capacity of more than 137,500 barrels per stream day.

~~(20)~~ (23) "Straight-run California diesel fuel" means diesel fuel produced from crude oil which is commercially available in California by distillation, without the use of cracking or other chemical conversion processes.

~~(21)~~ (24) "Stream day" means 24 consecutive hours of actual operation of a refinery.

~~(22)~~ (25) "Supply" means to provide or transfer a product to a physically separate facility, vehicle, or transportation system.

~~(23)~~ (26) "Vehicular diesel fuel" means any diesel fuel (A) which is not conspicuously identified as a fuel which may not lawfully be dispensed into motor vehicle fuel tanks in California; or (B) which the person selling, offering for sale, or supplying the diesel fuel knows will be dispensed into motor vehicle fuel tanks in California; or (C) which the person selling, offering for sale, or supplying the diesel fuel in the exercise of reasonable prudence should know will be dispensed into motor vehicle fuel tanks in California, and that is not the subject of a declaration under penalty of perjury by the purchaser, offeree or recipient stating that s/he will not sell, offer for sale, or transfer the fuel for dispensing, or dispense the fuel, into motor vehicle fuel tanks in California.

* * * *

[No proposed amendments to subsection (c), "Test Method," or to subsection (d), "Designated Alternative Limit."]

* * * *

(e) **Small Refiner Diesel Fuel.**

(1)(A) The provisions of subsection (a)(1)(A), (B) and (C) shall not apply to the diesel fuel that is produced by a small refiner at the small refiner's California refinery and that is first consecutively supplied from the refinery as vehicular diesel fuel in each calendar year ~~for use in motor vehicles~~, up to the small refiner's exempt volume (up to one quarter of the small refiner's exempt volume for the period from October 1, 1993-December 31, 1993). ~~This exemption shall not apply to any diesel fuel supplied from a small refiner's refinery in any calendar quarter in which less than 25 percent of the diesel fuel supplied from the refinery was produced from the distillation of crude oil at the refinery.~~ The foregoing notwithstanding, in the case of any small refiner that pursuant to subsection (a)(4) has not been subject to subsection (a)(1) until October 1, 1994, all vehicular

diesel fuel produced by the small refiner at the small refiner's California refinery and supplied from the refinery from October 1, 1994 through December 31, 1994, shall be exempt from the provisions of subsection (a)(1)(A), (B) and (C), up to the quarterly volume limits imposed by the executive officer in connection with issuance of suspension orders pursuant to section 2281(g).

(B)(i) In any calendar year in which a small refiner has elected to be subject to this subsection (e)(1)(B), the provisions of subsection (a)(1)(A), (B) and (C) shall not apply to the diesel fuel that is produced by the small refiner at the small refiner's California refinery and that is first consecutively supplied from the refinery as vehicular diesel fuel during the calendar year, up to the point in that calendar year at which the vehicular diesel fuel and California nonvehicular distillate fuel produced by the small refiner and supplied from the refinery equals the small refiner's exempt total distillate fuel volume.

(ii) In any calendar year in which a small refiner has elected to be subject to this subsection (e)(1)(B), once the small refiner supplies from its California refinery vehicular diesel fuel and California nonvehicular distillate fuel it has produced in a combined volume equal to the small refiner's total distillate fuel exempt volume, the small refiner shall not supply from its California refinery any further California nonvehicular distillate fuel produced by the small refiner; any further vehicular diesel fuel produced by the small refiner and supplied from the refinery in the calendar year shall meet the standards in subsection (a)(1)(A), (B), or (C).

(iii) In order to elect to be subject to this subsection (e)(1)(B) instead of subsection (e)(1)(A) for a given calendar year, a small refiner shall notify the executive officer of the election in writing at least 7 days prior to the date on which the small refiner completes transfer from its California refinery of the maximum volume of diesel fuel which would be exempt from subsection (a)(1)(A), (B) and (C) pursuant to subsection (e)(1)(A).

(C) The exemptions in subsection (e)(1)(A) and (e)(1)(B) shall not apply to any diesel fuel supplied from a small refiner's refinery in any calendar quarter in which less than 25 percent of the diesel fuel supplied

from the refinery was produced from the distillation of crude oil at the refinery.

(2) To qualify for an exemption under this subsection (e), a refiner shall submit to the executive officer an application for exemption executed in California under penalty of perjury, on the Air Resource's Board's ARB/SSD/CPB Form 89-9-1, for each of the small refiner's California refineries. The application shall specify the crude oil capacity of the refinery at all times since January 1, 1978, 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, data demonstrating that the refinery has the capacity to produce liquid fuels by distilling petroleum, and 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 distillate fuel at the small refiner's California refinery for 1983 through 1987. Within 90 days of receipt of the application, the executive officer shall grant or deny the exemption in writing. The exemption shall be granted if the executive officer determines that the applicant has demonstrated that s/he meets the provisions of subsection (b)~~(19)~~(22), and shall identify the small refiner's exempt volume. The exemption shall immediately cease to apply at any time the refiner ceases to meet the definition of small refiner in subsection (b)~~(19)~~(22).

(3) In addition to the requirements of subsection (f) below, each small refiner who is covered by an exemption shall submit to the executive officer reports containing the information set forth below for each of the small refiner's California refineries. The reports shall be executed in California under penalty of perjury, and must be received within the time indicated below:

(A) The quantity, ASTM grade, aromatic hydrocarbon content, and batch identification of all diesel fuel, produced by the small refiner, that is supplied from the small refinery in each month ~~for sale for use in motor vehicles~~ as vehicular diesel fuel, within 15 days after the end of the month;

(B) The quantity, aromatic hydrocarbon content (if claimed to be 20 percent by volume or less), grade, and batch identification of all distillate fuel, produced by the small refiner, that is supplied from the small refinery in each month as California nonvehicular distillate fuel, within 15 days after the end of the month; provided that in any calendar year in which a small refiner has notified the executive officer that the small refiner waives the opportunity to make an election pursuant to subsection (e)(1)(B)(iii), the small refiner shall not be required to report the information described in this subsection (e)(3)(B) and subsection (e)(3)(C) for the period following the waiver notification.

(C) The quantity, aromatic hydrocarbon content (if claimed to be 20 percent by volume or less), grade and batch identification of all distillate fuel, and separately of all residual fuel oil, produced by the small refiner, that is supplied from the small refinery in each month and is not covered by subsections (e)(3)(A) and (B), within 15 days after the end of the month;

(D) The quantity, ASTM grade, aromatic hydrocarbon content (if claimed to be 20 percent by volume or less), and batch identification of all diesel fuel, not produced by the small refiner, that is supplied from the small refinery in each month, within 15 days after the end of the month;

~~(B)~~ (E) For each calendar quarter, a statement whether 25 percent or more of the diesel fuel transferred from the small refiner's refinery was produced by the distillation of crude oil at the small refiner's refinery, within 15 days after the close of such quarter;

~~(C)~~ (F) The date, if any, on which the small refiner completes transfer from its small refinery in a calendar year of the maximum amount of vehicular diesel fuel which is or would be exempt from subsection (a)(1)(A) and (B) pursuant to subsection (e), within 5 days after such date;

(G) In the case of a small refiner that has elected to be subject to subsection (e)(1)(B), the date (if any) on which the small refiner completes transfer from its small refinery of vehicular diesel fuel and California nonvehicular distillate fuel it has produced in a combined volume equal to the small refiner's total distillate fuel exempt volume for the calendar year, within 5 days after such date;

~~(D)~~ (H) 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 subsection (b)~~(19)~~(22); and

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

(4) Whenever a small refiner fails to provide records identified in subsection (e)(3)(A) ~~or (B)~~ through (e)(3)(E) in accordance with the requirements of those subsections, the vehicular diesel fuel 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 section (a)(1)(A).

* * * *

[No proposed amendments to subsections (f) through (k), other than editorial corrections of citations to definitions in section 2282(b), to reflect changes in the numbering of the definitions.]

* * * *

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, and 43101 of the 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, 39500, 39515, 39516, 41511, 43000, 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).

APPENDIX B

TITLE 20,

CALIFORNIA CODE OF REGULATIONS § 1363

TITLE 20, CALIFORNIA CODE OF REGULATIONS, SECTION 1363

(Division 2, "State Energy Resources Conservation and Development Commission";
Chapter 3, "Data Collection";
Article 3, "Petroleum Information Reports.")

Section 1363. Definitions: Specific.

(a) Crude Oil -Domestic. A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Also, lease condensate moving to a refinery is included. Lease condensate is defined as natural gas liquid recovered from well gas (associated and nonassociated) in lease separators or field facilities. Drips are also included but topped crude oil and other unfinished oils are excluded. Natural gas liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Domestic crude is petroleum produced in the 50 states or from its "Outer Continental Shelf" as defined in 43 U.S.C. 1331. Include synthetic hydrocarbons such as shale oil, tar sands oil, heavy oil, etc.

(b) Foreign Crude Oil. A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remain liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate is also included. Lease condensate is defined as natural gas liquids recovered from gas-well gas (associated and nonassociated) in lease separators for field facilities. Drips are also included but topped crude oil and other unfinished oils are excluded. Natural gas liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded. Foreign crude is petroleum produced outside the United States. Includes Athabasca hydrocarbons.

(c) Unfinished Oils. Includes all oils requiring further processing. Oils which require only mechanical blending should not be reported as an unfinished oil.

(d) Leaded Motor Gasoline. A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, all of which have been blended to form a fuel suitable for use in spark ignition engines. Meets the detailed requirements for gasoline listed in ASTM D439 or Federal Specifications VV-G-1690B, to include no more than 10 percent boiling at 122F under atmospheric pressure, with Reid vapor pressure ranging from 9 to 15 psi. Consists of: Finished (marketable) leaded gasoline -produced with the use of any lead additive, containing more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company -specific EPA waiver provisions. For example, producers of 5,000 gallons or less per day may include 0.8 to 2.65 grams per gallon; large producers, 0.5 to 0.8 grams per gallon. Include: Both premium and regular grades, depending on the octane rating. Exclude: Any blendstock until blending has been completed and the blend stock is incorporated in the finished leaded gasoline and no longer separately identified. Also excludes any alcohol to be used in the blending of gasohol.

(e) Unleaded Motor gasoline. A complex mixture of relatively volatile hydrocarbons as described above for "leaded motor gasoline" and meets the same requirements for distillation temperatures and vapor pressure. Consists of: Finished (marketable) unleaded gasoline containing no more than 0.05 grams of lead per gallon and not more than 0.005 grams of

phosphorus per gallon, regardless of the size of the producer. Include: Both premium and regular grade, depending on the octane rating. Exclude: Any blendstock until blending has been completed and the blend stock is incorporated in the finished unleaded gasoline and no longer separately identified. Also excludes any alcohol to be used in the blending of gasohol.

(f) Gasohol. A blend of alcohol and finished motor gasoline consisting of (a) 90 percent or less finished motor gasoline, leaded or unleaded as described above, and (b) 10 percent or more alcohol (ethanol or methanol).

(g) Aviation Fuels. Includes aviation gasoline, naphtha jet fuel and kerosene jet fuel.

(h) Aviation Gasoline. All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Also includes blending components which will be used in blending or compounding into finished aviation gasoline.

(i) Naphtha Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of **52.8 degrees API and 20** to 90 percent distillation temperatures of 290 degrees F to 470 degrees F and/or meeting Military Specification MIL-T-5624L (Grade JP-4). Used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels which should be reported with "Other Finished Products -fuel use."

(j) Kerosene Jet Fuel. A quality kerosene product with an average gravity of 40.7 API, and 10 percent distillation temperature of 400F and an end-point of 572F covered by ASTM Specification D1655 and Military Specification MIL-T5624L (Grade JP-5 and JP-8). Used primarily as fuel for commercial turbojet and turboprop aircraft engines. A relatively low freezing point distillate of the kerosene type.

(k) Distillates. Means distillate fuel oil less No. 4 fuel oil, kerosene, and other middle distillates not reported elsewhere.

(1) Distillate Fuel Oil, Less No. 4 Fuel Oil. A general classification for one of the petroleum fractions which, when produced in conventional distillation operations, has a boiling range from 10 percent point at 400F to 90 percent point at 640F. Included are products known as Nos. 1 and 2 heating oils confirming to ASTM Specification D396 and diesel fuel confirming to ASTM Specification D975 for No. 1-D and No. 2-D.

(m) Residual Fuel Oil. Topped crude or refiner operations. Includes Nos. 4, 5 and 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C; Navy Special fuel oil in Military Specification IL859E, including Amendment 2; and Bunker C fuel oil.

(n) Petroleum Coke. A solid residue; the final product of the condensation process in cracking. It consists probably of highly polycyclic aromatic hydrocarbons very poor in hydrogen. Calcination of petroleum coke can yield almost pure carbon or artificial graphite suitable for production of carbon or graphite electrodes, structural graphite, motor brushes, dry cells, etc.

(o) Synthetic Fuel. A fuel derived from feedstock such as coal, oil shale, tar sands, balms, or natural gas.

(p) Bulk Terminal is a storage and distribution facility which is primarily used for the wholesale marketing of petroleum products and which (1) has total storage capacity of 50,000 bbls or (2) receives its petroleum products by tanker, barge, or pipeline, and (3) is not a

public storage facility.

(q) Refinery Storage Facility means storage located on a refinery site or operated in conjunction with a refinery and which primarily receives its petroleum product directly from a refiner.

(r) Major Crude Oil Storer is a firm, other than a refiner, or public storage facility that owns or operates one or more tank farms and which stored more than 30,000 barrels of crude oil at any time during the current or preceding calendar year.

(s) Tank Farm is a facility which is used for the storage of crude oils and which (1) has total storage capacity of 20,000 barrels or more and (2) is not located on a refinery site, (3) which does not contain lease storage facilities, and (4) is not a public storage facility.

(t) Central California includes the counties of San Luis Obispo, Kern, Inyo, Tulare, Kings, Monterey, San Benito, and Fresno.

(u) Northern California includes the counties of Santa Cruz, Santa Clara, San Mateo, San Francisco, Merced, Stanislaus, Alameda, San Joaquin, Tuolumne, Calaveras, Mono, Alpine, Amador, Sacramento, Solano, Napa, Marin, Sonoma, Yolo, El Dorado, Placer, Sutter, Colusa, Lake, Mendocino, Glenn, Butte, Nevada, Sierra, Yuba, Plumes, Tehama, Lassen, Shasta, Trinity, Humboldt, Del Norte, Siskiyou, Mariposa, Madera, Modoc, and Contra Costa.

(v) Southern California includes the counties of Santa Barbara, Ventura, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Imperial.

(w) Major Crude Oil Transporter is a firm that owns or operates a trunk pipeline and transported 20,000 barrels during any one month of the current or preceding calendar year. End users that transport crude oil only between facilities owned or leased by such end users for their own use shall not be considered major crude oil transporters. Public storage facilities that transport crude oil only between its owned and operated storage, terminalling, or warehousing operations shall not be considered major crude oil transporters.

(x) Usable Storage Tank Capacity, when used in connection with crude oil or petroleum product pipeline systems, means total liquid storage volume less that volume which cannot be used for normal operations (i.e., less basic sediment and water, corrected to 60 degrees F).

(y) Lease Storage Facilities are storage tanks used to accumulate crude oil from producing properties prior to first sale or shipment.

(z) Pipeline Gathering System is a pipeline system that collects crude oil from lease storage facilities and delivers it to a crude oil pipeline system.

(aa) Major Petroleum Product Transporter is a firm that owns or operates a petroleum product pipeline, trucks, tankers, barges or railroad cars, and which transported 20,000 barrels of petroleum products during any one month of the current or preceding calendar year. End users that transport products only between facilities owned or leased by such end users for their own use shall not be considered major petroleum products transporters. Public storage
facilities that transport petroleum product only between its owned and operated storage, terminalling, or warehousing operations shall not be considered major petroleum product transporters.

(bb) Crude Oil Pipeline System receives its supply from pipeline gathering systems, tanker or barge, and has its terminals located at a refinery,

waterside terminal and from which crude oil is shipped directly to one or more refineries in California or transported oil out of state. A crude oil pipeline system includes all points of origin, terminals, working tank storage capacity, and points of interconnection with crude oil pipeline systems operated by others.

(cc) Major Crude Oil Producer is an operator or firm that produces crude oil in California, California tidelands, or the Outer Continental Shelf adjacent to California tidelands in an amount greater than 30,000 bbls during any month of the current or preceding calendar year.

(dd) Major Petroleum Products Storer is a person who received into storage 20,000 bbls of any combination of petroleum products during any month of the current or preceding calendar year, and which did not sell or export 20,000 bbls or more during any such month.

(ee) Refiner and Refinery are as defined in Public Resources Code Sections 25127 and 25128.

(ff) Producing Property is property containing at least one well which produced crude oil during the reporting period in an amount as to require reporting of production to the California Division of Oil and Gas.

(gg) Lease Means producing property.

(hh) Gross Production means total crude oil production, including all crude oil consumed in the production process, as reported to the California Division of Oil and Gas.

(ii) Pipeline Storage Tanks are storage facilities owned by a pipeline firm and located at the points of origin and at terminals of pipeline segments and which are used to maintain normal pipeline operations.

(jj) Average Throughput is the liquid vellum transported by a pipeline during a period divided by the number of days in the period.

(kk) Maximum Throughput is the maximum liquid vellum which may be transported through a pipeline for an indefinite period without damaging any pipeline equipment.

(ll) Public Storage Facility(ies) is public liquid bulk storage, terminalling, or warehousing operation for hire in which the owner or operator of the facility has no ownership interest in any of the materials stored on contract with its customers.

(mm) Motor Gasoline includes leaded, unleaded, and unspecified gasoline.

(nn) Stocks includes stocks corrected to 60 degrees F less basic sediment and water (BS&W) include all stocks of domestic origin held at refineries and in transit thereto, except crude oil in transit from Alaska or any crude oil or product in transit by pipeline. Include foreign stocks held at refineries only after entry through Customs for domestic consumption. "After entry through Customs for domestic consumption" Means the "date of importation" specified on the U.S. Costumes Service Consumption Entry Form 7501 or the "date of withdrawal" specified on the U.S. Customs Service Warehouse Withdrawals for Consumption Form 7505. Exclude stocks of foreign origin held in bond and/or in transit by pipeline. Report all stocks in custody of the refinery, regardless of ownership. Reported stock figures should represent actual measured inventories, where an actual physical measurement is possible.

(oo) Unspecified Motor Gasoline includes blending components in the gasoline range or finished gasoline blends, such as gasohol, which are not classified as leaded gasoline or unleaded gasoline.

(pp) Receipts includes all receipts at the refinery and in transit as covered in "Stocks."

Receipts of crude oil frame Alaska should be included. Foreign receipts should be only those receipts at the refinery for domestic consumption after entry through Customs. Exclude stocks of foreign origin held in bond and/or in transit by pipeline.

(qq) Refinery Fuel Use and Losses During the Month includes all nonprocessing losses (e.g., spills, fire losses, contamination, etc.) by product. Report, by product, fuel consumed at the reporting facility for all purposes.

(rr) Exchange means a transaction in which title or interest in petroleum products or crude oil stocks are transferred between firms in return for other petroleum products or crude oil stocks.

(ss) A Product Pipeline System transports petroleum products from refineries or bulk terminals to other terminals or interconnections with other pipelines; a product pipeline system does not include interconnections within a terminal facility or those lines connecting public storage facilities to one another.

(tt) Kerosene is a petroleum distillate in the 300 degrees F to 500 degrees F boiling range and generally having a flash point higher than 100 degrees F by ASTM Method 056, a gravity range from 40 to 46 API and a burning point in the range of 150 degrees F to 175 degrees F.

(uu) Operator means any person drilling, maintaining, operating, pumping, or in control of any well, is defined by the California Public Utilities Commission and used by the Division of Oil and Gas.

(vv) Firm means any person, as defined in Public Resources Code Section 25116, engaged in any activity covered by these regulations.

(ww) Major Petroleum Products Marketer is a firm which sells or has sold 20,000 barrels or more of petroleum products during any month of the current or preceding calendar year, excluding service stations or truck stops. An electric utility shall not be considered a major petroleum products marketer unless it has sold or otherwise disposed of, other than through its own consumption, 20,000 barrels or more of petroleum products per month during any four months of the current or preceding calendar year.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354, Public Resources Code.

APPENDIX C

DETAILED DESCRIPTION OF THE PROPOSED AMENDMENTS TO TITLE 13, CALIFORNIA CODE OF REGULATIONS, SECTION 2282

APPENDIX C

DETAILED DESCRIPTION OF THE PROPOSED AMENDMENTS TO TITLE 13, CALIFORNIA CODE OF REGULATIONS, SECTION 2282

A. Amendments Allowing an Option For Determining Volumes of Small Refiner Diesel Fuel Subject to the 20 Percent Aromatic Hydrocarbon Limit

The restrictions on the volume of a small refiner's diesel fuel that is subject to the less stringent 20 percent aromatic hydrocarbon content standard are now contained in Title 13, California Code of Regulations, section 2282(e)(1). This volume is calculated and applied on a calendar year basis. Under the amendments, the current volume provisions would be placed in a subsection (e)(1)(A). The new option involving annual limits on the total California distillate shipped by a small refiner would be contained in a new subsection (e)(1)(B). Subsection (e)(1) currently includes a provision stating that the less stringent small refiner 20 percent aromatic hydrocarbon content standard will not apply in any quarter in which less than 25 percent of the diesel fuel shipped from the small refiner's refinery was produced from the distillation of crude oil at the refinery. This provision would be moved to a new subsection (e)(1)(C), so that it applies to both the current volume provisions and the proposed new option.

The 20 percent aromatic hydrocarbon content limits apply only to diesel fuel produced by a small refiner at its California refinery. The annual amount of a small refiner's diesel fuel that is subject to the 20 percent limit is called the small refiner's "exempt volume." The exempt volume is calculated as 65 percent of the average annual production volume of distillate fuel at the small refinery as reported to the California Energy Commission (CEC) during specified years. The regulation now provides that all California motor vehicle diesel fuel produced by the small refiner and shipped from its refinery from the start of each year is counted against the "exempt volume," until the total exempt volume is reached. Motor vehicle diesel fuel supplied from the refinery in the remainder of the year is subject to the basic 10 percent aromatic hydrocarbon content standard or equivalent.

Under the proposed amendments, each year a small refiner would be subject to the existing exempt volume calculation provisions unless the refiner elects to be subject to the new "total distillate" option. New subsection (e)(1)(B)(iii) would allow the small refiner to make the election at any time up to seven days before the time the refiner would reach its full "exempt volume" under the current calculation. Once a small refiner has elected to use the "total distillate" option for a given calendar year, it may not change back to the existing exempt volume provisions until the following year. This approach is designed to give the refiner maximum flexibility in choosing its means of compliance, while precluding the refiner from changing options on an "after-the-fact" basis.

A small refiner electing to operate under the new option would be subject to an annual volume limit which would be identical to the small refiner's current "exempt volume" before the 65 percent adjustment. The small refiner would count all of the California vehicular diesel fuel and California nonvehicular distillate fuel produced at the small refinery and shipped from the refinery from the beginning of the year against the new "exempt total distillate volume" limit. Under new subsection (e)(1)(B)(i), all of the California vehicular diesel fuel produced at the refinery and shipped from the refinery before the annual "exempt total distillate volume" is reached would be subject to the 20 percent aromatic hydrocarbon content standard. New subsection (e)(i)(B)(ii) would apply once the "exempt total distillate volume" is reached for the year. For the rest of the year, any further California vehicular diesel fuel shipped from the refinery would be subject to the 10 percent aromatic hydrocarbon content standard or equivalent. For the rest of the year the small refiner would be prohibited from selling any additional California nonvehicular diesel fuel.

In applying the new option, "distillate fuel" would be defined in section 2282(b)(5) as have the meaning established by the CEC in the definition section of its data collection regulations. The CEC definitions are contained in Title 20, California Code of Regulations, section 1363, which is attached to this Staff Report as Appendix B. This approach was chosen because the CEC definition applies to the reports submitted to the CEC that are used to establish each small refiner's "exempt volume" and "exempt total distillate volume." A small refiner is permitted to exclude distillate fuel being shipped out of state from the distillate fuel counted against the "exempt total distillate volume." To assure that such excluded distillate fuel does not end up being used in the state, under the regulation all nonvehicular distillate fuel would be counted as California nonvehicular distillate fuel unless it is conspicuously identified as a fuel that is not to be consumed in California and is supplied under circumstances which would lead a reasonably prudent refiner to believe the distillate fuel will be consumed outside California. (section 2282(b)(1).)

Section 2282(e)(3) of the current regulation imposes reporting requirements on small refiners necessary to enable ARB inspectors to determine that the small refiners are complying with the regulation. The proposed amendments would add requirements that small refiners submit information regarding shipments of California nonvehicular distillate fuel, and total distillate fuel, in a form similar to that currently required for California vehicular diesel fuel. This information is necessary to assure compliance with the new option. In addition, information would be required for shipments of "residual oil" so that inspectors can evaluate whether distillate is being diverted to residual oil streams. Since any refiner has the opportunity to elect the new option until seven days before reaching the "exempt volume" for a year, the requirements would apply to all small refiners. However, in order to avoid unnecessary burdens, the reports regarding distillate fuel would not be required in a year once the small refiner notifies the Executive Officer in writing that it will not be using the "exempt total distillate fuel volume" option.

B. October 1, 1994 Through December 31, 1994 Volume Limits for 20 Percent Aromatic Hydrocarbon Content Diesel Fuel Produced By Small Refiners Not Previously Subject to That Limit

Section 2281(g) directs the Executive Officer to suspend the sulfur content limits until October 1, 1994, for small refiners making good faith efforts to construct additional desulfurization equipment which would enable them to comply with the sulfur content limits through use of that equipment. (During this time, the small refiners remain subject to the previously effective regulation limiting the sulfur content of motor vehicle diesel fuel sold in the greater Los Angeles area, Title 13, California Code of Regulations, section 2281.) Section 2282(a)(4) provides that the aromatic hydrocarbon content limits shall not apply to a small refiner during the effective period of a suspension of the sulfur content regulation.

The Executive Officer has issued suspension orders temporarily suspending the statewide sulfur and aromatic hydrocarbon content limits until October 1, 1994, for three small refiners--Kern Oil and Refining Co., Paramount Petroleum, and Powerine Oil Company (Executive Order Nos. G-857-1, G-857-2, and G-857-3 respectively). Each of the Executive Orders imposed a quarterly limit on the volume of motor vehicle diesel fuel covered by the suspension of the sulfur and aromatic hydrocarbon content limits. The final quarterly "suspension volumes" for the three refiners were contained in letters to the refiners from the Executive Officer dated October 8, 1994, as follows: Kern Oil & Refining, 591,500 barrels (equivalent to 6482 barrels per day); Paramount Petroleum, 1,064,700 barrels (equivalent to 11,668 barrels per day); and Powerine Oil Company, 1,419,600 barrels (equivalent to 15,557 barrels per day). In a subsequent letter from the Executive Officer dated April 11, 1994, Kern's suspension volume was increased to 714,100 barrels, equivalent to 7,826 barrels per day.

In the regulatory amendments now being proposed, language would be added to section 2282(e)(1)(A) to address the volume limits for 20 percent aromatic hydrocarbon diesel fuel shipped in the fourth quarter of 1994 by a small refiner previously subject to a suspension of the sulfur and aromatic hydrocarbon content limits. The volume limit in the fourth quarter would be identical to the quarterly suspension volumes imposed by the Executive Officer in connection with issuance of the suspension orders pursuant to section 2281(g).