

FINDING OF EMERGENCY

EMERGENCY REGULATORY AMENDMENT RELAXING THE REID VAPOR PRESSURE STANDARD FOR CALIFORNIA REFORMULATED GASOLINE IN SEPTEMBER AND OCTOBER 2005

INFORMATIVE DIGEST OF EMERGENCY REGULATORY AMENDMENT

Sections Affected: Amendments to sections 2262, 2262.4, and 2266.5(a)(6), title 13, California Code of Regulations (CCR).

Background

The Air Resources Board (ARB) administers the Phase 3 California Reformulated Gasoline (CaRFG3) regulations, which are designed to reduce emissions of pollutants which either contribute to unhealthy air quality in the state or are toxic air contaminants. One of the CaRFG3 requirements for California gasoline is that it is subject to a Reid vapor pressure (RVP) maximum cap limit of 7.2 pound per square inch (psi) and flat limits of 7.0 or 6.9 psi during regulatory control periods in the warmest months when ozone concentrations are higher. The regulatory control period ends October 31 in most of the state including all of its urban areas; it ends September 30 in the remainder of the state. The RVP of gasoline is a measurement of its propensity to evaporate. Reducing gasoline RVP reduces evaporative emissions of hydrocarbons, which are a precursor of ozone – the primary constituent of smog. In order to meet the summertime RVP standard, refiners typically remove some or all of the higher volatility components, typically butanes and pentanes, from gasoline blends.

Hurricane Katrina, which hit the Gulf Coast on August 29, 2005, has had very significant impacts on the nation's oil production and refining industries. In the week since the storm hit, supplies of transportation fuels have been strained in the Southeast, Midwest and Atlantic states. As a result, the national retail prices for a gallon of regular gasoline have risen above \$3.00. Prices in California have also gone up significantly. Wholesale prices for gasoline have risen even more.

Although it is not known how long it will take to restore production capacity, there is virtual certainty that it will be at least several weeks before production recovers and/or replacement products can be imported. In the meantime, supplies in the east will likely be low, shortages may occur and high prices will persist.

As one response to this situation, on August 31, 2005 the U.S. Environmental Protection Agency (U.S. EPA) waived immediately the federal RVP limits for gasoline, which applied through September 15, to allow greater production of gasoline. The agency also waived a provision of the federal diesel fuel regulations to permit more flexible use of diesel in the affected areas. These U.S. EPA actions did not modify state regulations in effect in California.

Although West Coast refinery capacity and crude imports were not affected by Hurricane Katrina, the ability of those refineries to fully supply California and the surrounding states is very dependent on imports from the U.S. Gulf Coast, Europe and Canada. Approximately ten percent of the fuel needed for the California transportation market is imported via tanker from these regions. Given the supply shortfalls and high prices in other U.S. regions, California is expected to lose these imports for a period of between six and eight weeks.

Because of this situation, the California Energy Commission (CEC) and several refiners requested that ARB consider emergency action to relax pollution control rules to enable gasoline production increases by California refineries. Specifically, ARB has been asked to allow an early transition from summertime low-RVP gasoline to wintertime formulas.

Under the California Administrative Procedure Act and state regulations, state agencies are normally required to submit a hearing notice to the Office of Administrative Law (OAL) at least 55 days before a hearing to amend a regulation, so that it can be published in the California Notice Register at least 45 days before the hearing. However, an agency is authorized to amend a regulation on an emergency basis without following the regular procedural requirements upon a finding that the amendment "is necessary for the immediate preservation of the public health and safety or general welfare." OAL has an abbreviated 10-day period to review the amendment after it is submitted by the adopting agency, and the amendment may go into effect immediately after it is approved by OAL and filed with the Secretary of State. An amendment adopted on an emergency basis may remain in effect for no more than 120 days unless the adopting agency complies with the procedural requirements for a normal amendment. (Government Code section 11346.1.)

The September 8, 2005 Emergency Hearing

At approximately 5:00 p.m. on September 6, 2005, ARB posted on its Internet site a notice for a September 8 hearing in Sacramento, at which the Executive Officer or her designee would consider emergency amendments to the CaRFG3 regulations. The text of the proposed amendments and a Staff Report providing the rationale for the proposed action were posted along with the notice on ARB's Internet site, and notice of these postings was emailed late September 6 to the extensive list of persons who have requested electronic notification of ARB hearing notices, or of ARB Internet postings pertaining to motor vehicle fuels.

The notice indicated that the proposed emergency amendments posted September 6 would substitute a 9.0 psi RVP standard for the current 6.9 and 7.0 psi flat RVP standard and for the 7.2 psi maximum cap RVP limits, applicable from the effective date of the amendments through the end of the 2005 RVP season (October 31, 2005 in most of the state including its major urban areas, and September 30, 2005 in the remaining four air basins). Using the preexisting evaporative emissions model element of the CaRFG3 Predictive Model with the adjusted 9.0 psi RVP standard, a refiner not wishing

to use the full 9.0 psi RVP allowable would be permitted to produce a fuel with a lower RVP and use the associated reduction in evaporative hydrocarbon emissions to adjust other fuel parameters to optimize production of California gasoline and fully use the available blendstocks without an increase in the ozone forming potential above what would be associated with a 9.0 psi RVP California gasoline. By increasing only the limit for RVP, the limitation on the emissions of NOx and toxics would remain the same.

The Executive Officer designated Deputy Executive Officer Michael H. Scheible to conduct the September 8 hearing. At the hearing, staff presented an additional proposed amendment that would increase the RVP cap limit for California Reformulated Blendstock for Oxygenate Blending (CARBOB), in an amount that corresponds with the proposed increase in the RVP limits for finished California gasoline.

In addition to personal attendance, the public was provided the opportunity to participate in the hearing by teleconference; the hearing was also webcast on ARB's Internet site. The notice indicated that the public would have the opportunity to present comments orally or in writing at the hearing, or in writing or by email or facsimile received no later than 5:00 p.m., September 7, 2005. At the hearing, after the staff presentation by Dean Simeroth, Chief, Criteria Pollutants Branch, the following persons provided oral and/or written testimony:

Gordon Schremp, California Energy Commission, provided oral and written testimony in support of the emergency regulatory amendment. The CEC is responsible for the collection and analyses of information related to supply and price of transportation fuels in the State. During periods of temporary fuel supply problems that occur on a local, regional or national scope, the CEC routinely investigates the nature and extent of these transportation fuel supply problems to determine if any action could be taken by various state agencies that would provide temporary relief to augment supply.

Karen Lange, Assembly Republican Caucus, provided oral and written testimony in support of the emergency regulatory amendment and provided additional comments about expanding the use of 10 percent ethanol blends (E10) to increase fuel supply in California.

Joe Sparano, Western States Petroleum Association, provided oral testimony in support of the emergency regulatory amendment and provided additional comments identifying the complementary need to update Department of Measurement Standard regulations.

Teri Shore, Bluewater Network, provided oral and written testimony in opposition of the emergency regulatory amendment, on the ground that there is no emergency justifying weakening California's air quality laws, there is no assurance that any increases in production will result in price decreases, and the impacts of loosening health-based protections far outweigh the increases in price that have occurred recently.

Dave Smith, BP, provided oral testimony in support of the emergency regulatory amendment and provided additional comments voicing concern over the need to amend Department of Measurement Standard regulations.

Jay McKeeman, California Independent Oil Marketers Association, provided oral and written testimony in support of the emergency regulatory amendment and provided additional comments about expanding the use of E10 to increase fuel supply in California.

Tom Koehler, California Renewable Fuels Partnership, provided oral testimony in support of the emergency regulatory amendment and provided additional comments about expanding the use of E10 to increase fuel supply in California.

Staci Heaton, California Trucking Association, provided oral and written testimony in support of the emergency regulatory amendment and provided additional comments about applying the regulation relief to diesel fuel.

V. John White, Center for Energy Efficiency and Renewable Technologies and representing several environmental organizations, provided oral and written neutral testimony for the emergency regulatory amendment with comments about reducing petroleum demand in California.

Al Jessel, Chevron, provided oral testimony in support of the emergency regulatory amendment and provided additional comments in opposition of relaxing diesel rules and in opposition of the ethanol alternative to increase fuel supply.

Gary Whitten, Smog Reyes, provided oral and written neutral testimony for the emergency regulatory amendment and with comments about expanding the use of E10 in California's fuel supply.

John Dunlap provided oral testimony in support of the emergency regulatory amendment and provided additional comments about expanding the use of E10 in California's fuel supply.

Russ Kinzig, Kinder Morgan Energy Partners, provided oral testimony via telephone in support of the emergency regulatory amendment and provided additional comments on the ethanol alternative to increase fuel supply, pertaining to a lack of capacity at the blending terminals.

In addition, timely email or facsimile comments were submitted by:

John Reese, Shell, provided written testimony in support of the emergency regulatory amendment.

NEED FOR IMMEDIATE ACTION

The proposed amendments, with the modification relaxing the CARBOB cap limit for RVP and an additional clarification on how the CaRFG3 Predictive Model will operate during the remainder of the 2005 RVP season, are necessary for the immediate preservation of the public health and safety or general welfare because, as determined by the CEC and confirmed by other parties:

- (1) Refiners in California normally depend on imports of gasoline and blending components from a variety of domestic and foreign sources in order to produce adequate supplies of gasoline to meet local demand; these imports normally represent between 10 and 15 percent of the state's total gasoline supply. Most imports are from the Gulf of Mexico (including the Virgin Islands), Canada (Nova Scotia) and Europe (Finland).
- (2) The damage from Hurricane Katrina reduced the production of crude oil and the output of gasoline and other finished product from several Gulf Coast refineries which provide gasoline to local markets and customers in the upper Midwest, Atlantic states, and the Northeast. The loss of production of transportation fuels amounted to between 10 and 12 percent of the total supply of these fuels in the nation. While a number of these refineries have returned to normal operation, nearly half of the production capacity may not resume normal operations for several weeks.
- (3) The temporary loss of refinery capacity in the Gulf Coast has reduced availability of gasoline supplies that could be shipped to California from that region. In addition, some cargoes of gasoline that would normally be available for use in California have been diverted to other destinations in the East and Southeast U.S. that have experienced the severest shortage of gasoline. Since marine tankers require two weeks or more to transit from their point of origin to California, the full impacts resulting from decreased availability of gasoline imports will be somewhat delayed from the initial disruption in the Gulf.
- (4) Relaxing the RVP standard for California gasoline to 9.0 psi for the rest of the 2005 RVP season will permit California refiners to immediately increase their production of California gasoline by 4 to 10 percent by volume by using winter gasoline components held in storage and retaining these components in refined gasoline rather than removing them. This will provide immediate supply relief.
- (5) Without the relief provided by the proposed amendments, California refiners would try to offset their supply shortfalls by importing complying gasoline from alternative sources. However, there are a limited number of refineries outside the U.S. that are configured to produce complying California gasoline, and it could take several weeks to start receiving these supplies from foreign sources.

- (6) No other measures have been identified that would with certainty offset the potential shortage in California gasoline supplies in the next few weeks to the extent that would be achieved by the proposed amendments.

Since Hurricane Katrina, wholesale prices of gasoline have risen by about \$0.70 per gallon in California. In New York and other areas directly impacted by refinery and pipeline shutdowns wholesale prices initially increased by an even greater amount. If California supply is unable to meet demand, California price increases for California gasoline could exceed those being experienced in the eastern U.S.

Adverse Environmental Impacts

The emergency amendments will temporarily result in a significant increase in emissions from gasoline powered vehicles during the last month and a half of the state's smog season. The relaxation of the RVP standard is expected to increase vehicle emissions of reactive hydrocarbons, one of the two principal precursors of urban smog (ozone pollution), by about 50 tons per day. The increase in total smog forming emissions from all sources would be about 1.3 percent, and could increase ozone levels on the order of one percent on hot autumn days. While ozone levels during September and October are normally lower than peak summer levels, violations of these health protective standards are still common during these months in several areas including, the eastern portion of the South Coast Air Basin and parts of the San Joaquin Valley.

The need to address the potential California gasoline supply shortages caused by the extraordinary and unique events surrounding Hurricane Katrina is an overriding consideration that outweighs the substantial adverse air quality impacts that will result.

Imposition of a substitute RVP limit of 9.0 psi will eliminate the potential additional adverse air quality impacts that would result from total elimination of the RVP standard for the remainder of the RVP season. Allowing an RVP above 9.0 psi would result in only a very modest additional increase in gasoline production, which would be outweighed by the additional adverse air quality impacts. For most of California, ambient temperatures in September and October can routinely be in the mid 90° Fahrenheit (F) range. At these temperatures, gasolines with RVP higher than 9.0 psi will have significantly higher evaporative emissions. An 11.0 psi RVP gasoline could have 25 percent more evaporative emissions than a 9.0 psi RVP gasoline at 90° F, while only providing a very modest increase in volume.

FISCAL IMPACTS ON STATE AND LOCAL AGENCIES AND SCHOOL DISTRICTS

The Executive Officer has determined that the regulatory amendments will not create costs or savings to any state agency or in federal funding to the state, costs or mandate to any local agency or school district whether or not reimbursable by the state pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code, or other nondiscretionary savings to state or local agencies. The amendments are

expected to lessen or eliminate increases in the price of gasoline that could otherwise occur in the next two months due to potential shortages in gasoline supplies.

STATUTORY AUTHORITY AND REFERENCES

This regulatory action is taken under that authority granted in sections 39600, 39601, 43013, 43018, and 43101, Health and Safety Code, and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975).

This regulatory action is taken to implement, interpret, and make specific 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).

Executed this 8th day of September, 2005, at Sacramento, California.

 /s/
Catherine Witherspoon
Executive Officer