GOVERNOR GRAY DAVIS

April 12, 1999

The Honorable Carol M. Browner, Administrator
Environmental Protection Agency (A-100)
401 "M" Street, S.W.
Washington, D.C. 20460

Dear Ms. Browner:

I am writing to request that the U.S. Environmental Protection Agency (U.S. EPA) take prompt action to waive federal requirements that all gasoline sold in the Sacramento region and most of Southern California contain a minimum oxygen content pursuant to the provisions of the 1990 amendments to the Clean Air Act.

As I am sure you are aware, on March 26, 1999, I concluded that the use of the oxygenate methyl tertiary-butyl ether (MTBE) in California gasoline poses a significant risk to California's environment, and, accordingly, directed that MTBE be phased out of California gasoline as soon as possible. A copy of my Executive Order D-5-99, which identifies the actions we will take to remove MTBE from gasoline, is enclosed.

One of the essential elements for a rapid phase down, and eventual phase-out of MTBE in California, is action by the EPA to eliminate the current mandate that California gasoline subject to the federal reformulated gasoline (RFG) program — about 70 percent of all gasoline in the state — must contain by weight at least 2.0 percent oxygen year-round. Your action to provide this relief is needed for several compelling reasons.

Many California refineries have the capability to produce significant amounts of gasoline that provides all of the required emission reductions without using MTBE or any other oxygenate. The only reason such MTBE-free gasoline is not being made available today is U.S. EPA's enforcement of the 2.0 percent oxygen requirement. Your approval of our requested action would enable several refiners to greatly reduce their use of MTBE in the very near future.

In terms of the eventual phase-out of MTBE, your action is equally important. Under the current U.S. EPA requirements, once MTBE is phased out, the 70 percent of California gasoline that is sold in areas subject to the federal RFG program would need to be oxygenated with ethanol. Relying on ethanol exclusively for this volume of gasoline,

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approximately 10 billion gallons per year, would increase the time needed to complete our phase-out of MTBE, and result in higher fuel costs to California consumers. Your action to allow the required emissions reductions to be achieved without using a minimum oxygen content in every gallon of fuel would allow us to reduce risks of future water contamination sooner, meet California's growing demand for fuel and allow flexibility to make more economical blends of gasoline.

Finally, time is of the essence. California refineries must begin a time consuming and expensive retooling process to eliminate their current reliance on MTBE. In order to complete the phase-out of MTBE by December 31, 2002 or earlier, the refiners must start immediately with the planning and design phases of the necessary refinery and distribution system modifications. It is clear that the approach taken by industry will differ substantially depending on whether, upon completion of the modifications, refiners will be subject to a mandatory federal RFG minimum oxygen requirement. Without the mandatory oxygen requirement, the industry can design in greater flexibility and less costly processes. But in order to make informed planning and design decisions, the refiner must know in 1999 — not just in 2001 or 2002 or 2003 — that they will have flexibility with respect to oxygen requirements.

Because California has historically experienced the worst air quality in the nation and has long been engaged in pioneering efforts to reduce the contribution of motor vehicles to air pollution, the state has been granted unique authority by the Clean Air Act and the EPA to administer a state fuels program to reduce motor vehicle emissions. California is the only area in the country where the federal RFG requirements apply in conjunction with comprehensive and demonstrably more effective state standards for cleaner burning gasoline. The California regulations provide complete assurances that a waiver of the federal RFG year-round minimum oxygen content requirement will not result in a loss of any air quality.

Our regulations accomplish the needed emissions reductions without requiring a minimum level of oxygen. Numerous assessments by the auto and fuels industry, government agencies, and most recently scientists at the University of California confirm that a minimum oxygen content is not essential to making RFG that meets all emission reduction requirements. Therefore, application of the current minimum oxygen content requirement serves absolutely no purpose in California relative to its intended air quality rationale — to reduce ozone precursors and toxic emissions from vehicles.

In contrast, the minimum oxygen content requirement is having one clear effect on another area of the environment. It is increasing the risk that leaking tanks and boat

engine discharges pose to water quality. As the University of California study of MTBE indicated, California's ground and surface water resources are seriously at risk because of discharges of gasoline that has been oxygenated with MTBE. Over 60 percent of the reservoirs tested have detectable levels of MTBE, and many public drinking water sources in areas like Santa Monica, Santa Clara, Sacramento and South Lake Tahoe have been contaminated and shut down because of MTBE contamination. This is what led me to direct the appropriate state regulatory agencies to devise and carry out a plan to complete the expeditious phase-out of MTBE from California gasoline.

However, in order for California to achieve this essential protection of water quality quickly and at an affordable cost, we must have flexibility relative to the minimum oxygen content currently enforced by U.S. EPA. We need this action quickly, and I am calling on you to use your broad authority to protect both the air and water environment by allowing California's reformulated gasoline rules, which provide all of the emission benefits of the federal RFG, to be applied in lieu of the counterproductive federal minimum oxygen content requirement.

Your prompt approval of this request will help us limit any further contamination of drinking water while we transition away from MTBE. It will not risk any adverse impact on air quality due to California's more effective state gasoline regulations. It will enable us to devise the most expeditious and cost-effective solution to the MTBE problem in California. One that will protect our water and keep us on the road to clean air.

Thank you for your consideration of this request. Enclosed is a more detailed discussion of this issue and materials that support our request. As always we are ready to work with you to ensure that California and the EPA are working together to ensure environmental protection.

Sincerely,

Gray Davis

GRAY DAVIS

Enclosures

cc: Winston Hickox, Secretary for the Environmental Protection Agency

BASIS FOR WAIVER OF THE FEDERAL REFORMULATED GASOLINE REQUIREMENT FOR YEAR-ROUND OXYGENATED GASOLINE IN CALIFORNIA

On March 26, 1999 Governor Gray Davis took decisive action to begin the phase-out of the oxygenate methyl tertiary butyl ether (MTBE) in California gasoline. California's decision was based on a comprehensive, yearlong study by scientists from the University of California (U.C.). Executive Order D-5-99 outlines the state's action plan for removing MTBE from our gasoline. One of the essential elements for a successful MTBE phase-out in California is a waiver by the U.S. Environmental Protection Agency (U.S. EPA) of its current regulatory mandate that California gasoline subject to the federal reformulated gasoline (RFG) — about 70 percent of all gasoline in the state — must contain at least 2.0 percent by weight oxygen year-round.

Clean Air Act (CAA) section 211(k)(2)(B) expressly authorizes the Administrator to waive the federal RFG oxygen requirement in California if the requirement will prevent or interfere with attainment of the federal ambient ozone standard in a nonattainment area. The unique circumstances in California justify a section 211(k)(2)(B) waiver. If the Administrator concludes that such waiver cannot be issued based on this section, however, it is imperative that the oxygen mandate be waived on other grounds. California's rule for reformulated gasoline produces greater emission benefits than required federally, but do not necessitate a minimum concentration of oxygen in all gasoline. Application of the current minimum oxygen content requirement serves absolutely no purpose in California relative to its intended air quality rationale – to reduce ozone precursors and toxic emissions from vehicles.

In contrast, the minimum oxygen content requirement is having one clear effect on another area of the environment. It is increasing the risk that leaking tanks and boat engine discharges pose to water quality. As the U.C. study of MTBE indicated, California's ground and surface water resources are seriously at risk because of discharges of gasoline that has been oxygenated with MTBE.

Even without the authority in the Clean Air Act to waive the oxygen requirement, we believe that the Administrator could use broad, general authority and discretion to grant flexibility that has no adverse effect on air quality, and is needed to protect water resources.

Why California is Phasing-Out MTBE

California is phasing out MTBE in the states gasoline because of the threat it presents to California's groundwater, surface water, and drinking water systems. MTBE is highly soluble in water and will transfer to groundwater faster, farther and more easily than other gasoline constituents such as benzene when gasoline leaks from underground storage tanks or pipelines. Lawrence Livermore National Laboratory data shows that MTBE has been detected at over 4,600 leaking underground fuel tank sites in the state, even though only half the total sites have been inspected. While underground storage tanks were ordered replaced or upgraded by December 22, 1998, it is clear that even upgraded storage tanks are not leak-proof and future leaks from a small percentage of the many thousands of gasoline storage tanks in the state will continue in the future.

MTBE has been detected in public drinking water supplies in South Lake Tahoe, Santa Monica, Riverside, Anaheim, Los Angeles, San Francisco, Santa Clara, San Diego, and other locations. Santa Monica has lost 75 percent of its drinking water wells due to MTBE contamination; the South Lake Tahoe Public Utility District has lost over one-third of its drinking water wells. Drinking water wells in the Santa Clara Valley Water District and Sacramento have been shut down due to MTBE contamination.

The U.C. Study researchers concluded that "MTBE is an animal carcinogen with the potential to cause cancer in humans." The White House National Science and Technology Council reported that "There is sufficient evidence that MTBE is an animal carcinogen and that the weight of evidence supports regarding MTBE as having a carcinogenic hazard potential for humans." The National Toxicology Program (NTP) recently voted 8 to 5 against listing MTBE as a chemical likely to cause cancer in humans. But regardless of the toxicological concerns, even relatively low levels of MTBE in drinking water can be tasted and smelled by susceptible individuals. The taste has been characterized as "objectionable," "bitter," "solvent-like" and "nauseating." The California Department of Health Services has established a secondary maximum contamination level for MTBE of 5 parts per billion based on available data of the observable detection thresholds. It is clear that the people of California will not accept drinking water in which they can taste MTBE. Water is a precious resource in the state. The threat posed by MTBE to our potential drinking water supplies, and the high costs estimated by the U.C. Study for the continuing costs of cleaning up MTBE groundwater contamination, necessitate the complete removal of MTBE from California gasoline.

As discussed below, MTBE is used by refiners as a means of complying with the federal and California RFG requirements. Almost all California gasoline currently contains MTBE, with the exceptions being quantities of gasoline sold in the San Francisco Bay Area that either contain ethanol or are unoxygenated. California would prefer to eliminate MTBE from California gasoline immediately. However, a study by the California Energy Commission (CEC) concludes that "If the use of MTBE were discontinued immediately, the consequences would be dire for consumers and catastrophic for California's economy." Along with oxygenating gasoline, MTBE also helps dilute and offset the undesirable properties of other gasoline components. Thus although MTBE accounts for only 11 percent of gasoline volume, its removal would mean that a refiner would have to replace the other components as well, resulting in an estimated shortfall of 15 to 40 percent. In addition, the anticipated substitution of ethanol would necessitate various infrastructure modifications. A phase-out by December 31, 2002 should allow refiners to obtain adequate blendstock supplies and modify terminals to handle ethanol blending, although they may not have time to complete major refinery modifications that would optimize production of MTBE-free gasoline.

Why MTBE is Used in California Gasoline

Although small volumes of MTBE have been used as an octane enhancer in some California gasoline since the late 1970's, its use did not become widespread until implementation of the CAA Amendments of 1990.

The California wintertime oxygenates program. New CAA section 211(m) imposed requirements on states containing areas that were designated carbon monoxide (CO) nonattainment and met other specified criteria. There were 39 such areas in the country, and eight of these were in California. Section 211(m) conditionally required the states to submit State Implementation Plan (SIP) revisions requiring that gasoline sold in those areas contain at least 2.7 wt.% oxygen in the wintertime months when CO concentrations were the highest, starting in November 1992. Section 211(m)(3)(A) directed U.S. EPA to waive the requirement, allowing a state to require less of the oxygen additives, if the state shows that gasoline with 2.7 wt.% oxygen would prevent or interfere with the state's attainment of a state or national primary air quality standard other than CO.

Because there were so many CAA section 211(m) areas in California, in response to section 211(m) the ARB adopted statewide oxygen requirements for wintertime gasoline starting November 1992. Our Board adopted a minimum wintertime oxygen limit of 1.8 wt.% and a maximum limit of 2.2 wt.%. The maximum limit was imposed in 1991 because the Board concluded from available test data that increasing the oxygen content of gasoline beyond about 2 wt.% will increase overall emissions of oxides of nitrogen (NOx), which contributes to ozone formation and atmospheric particulate matter (PM). During the winter, most urban areas in California exceed the federal and state ambient air quality standards for PM, and some exceed the ambient standards for ozone.

When the California Phase 2 RFG (CaRFG) regulations described below became applicable in March 1996, they retained the mandatory minimum oxygen content requirements for wintertime gasoline. Because of the continuing replacement of older, higher emitting vehicles with new lower-emitting vehicles certified to the stringent California emission standards, along with the wintertime oxygenates program, maximum CO concentrations have improved throughout the state. In March 1998, U.S. EPA redesignated ten of California's CO federal nonattainment areas (63 FR 1503 (March 31, 1998)), and only the greater Los Angeles area remains nonattainment for the federal CO standard. After concluding that the wintertime oxygenates requirements were no longer necessary in many areas to maintain the CO standard, last August our Board eliminated the mandatory minimum oxygen standard of at least 1.8 wt.% for wintertime gasoline in a major portion of the state. The requirement remained permanently in the counties of Los Angeles, Orange, Riverside, San Bernardino Ventura and Imperial only, and remained only through January 31, 2000 in Fresno and Madera Counties and the Lake Tahoe Air Basin. The ARB plans in the next few weeks to schedule a hearing to remove this last requirement for the winter of 1999-2000, given the very serious MTBE contamination problem in the Lake Tahoe area and

our ability to demonstrate that oxygenated wintertime gasoline is no longer needed for CO attainment in those areas.

The federal RFG program in California. The Clean Air Act Amendments of 1990 also added CAA section 211(k), which directed U.S. EPA to issue federal RFG regulations applicable starting in January 1995 in the nine major metropolitan areas in the country with the worst ozone pollution. These included two major areas of California - the Los Angeles-Anaheim-Riverside area (the counties of Los Angeles, Orange and Ventura, southwestern San Bernardino County and western Riverside counties), and San Diego County. Because its ozone nonattainment status was "bumped up" to severe, the Sacramento Metro ozone nonattainment area (Sacramento and Yolo Counties, western Placer and El Dorado Counties, and eastern Solano and southern Sutter Counties) became subject to the federal RFG regulations in June 1996. The gasoline sold in these three federal RFG areas now makes up about 70 percent of all of the gasoline sold in California.

The stated objective of the federal RFG program is to reduce emissions of ozone-forming volatile organic compounds during the high ozone season and emissions of toxic air contaminants during the entire year. (CAA §211(k)(1).) Unless a specified gasoline formula was more stringent, Congress directed U.S. EPA to require a performance standards for federal RFG that generally would achieve a "Phase I" 15 percent reduction in both summertime VOC and toxics emissions starting January 1995, and cumulative "Phase II" reductions of 25 percent respectively starting in 2000. U.S. EPA established a "complex model" (distinguished from a "simple model" that was available during 1995 - 1997) to be used to demonstrate reductions in VOC and toxics emissions.

Clean Air Act section 211(k)(2) provides that the federal RFG regulations are also to impose four additional requirements — NOx emissions from so-called baseline vehicles no greater than NOx emissions from those vehicles when using "baseline gasoline"; a benzene content no greater than 1.0 percent; no heavy metals; and an oxygen content of at least 2.0 wt.%. U.S. EPA's federal RFG regulations impose a minimum oxygen content standard of 2.0 wt.% for all gasoline produced by a refiner electing to be subject to "per-gallon" standards, or an average standard of 2.1 wt.% with a per-gallon minimum of 1.5 wt.% for refiners electing to be subject to averaged standards. (40 CFR §80.41). Thus 70 percent of California's gasoline is now subject to the year-round minimum oxygen content standards of 2.0 or 2.1 wt.% regardless of the VOC, NOx and toxics emissions reductions shown by U.S. EPA's complex model.

The CaRFG program. The CaRFG regulations became applicable in March 1996. They are designed to achieve maximum reductions in emissions of VOCs, NOx, and potency-weighted toxics, as well as wintertime CO where needed. They establish standards for eight different gasoline properties — Reid vapor pressure (RVP), benzene, sulfur, aromatic hydrocarbon, olefins, oxygen, T50 and T90. For most of these properties, the regulations contain "flat" limits, "averaging" limits and "cap" limits. For example, the flat, averaging and cap limits for sulfur are 40, 30, and 80 ppm respectively. The more stringent

flat and averaging limits apply only at the refinery or gasoline import facility, while the cap limits apply throughout the gasoline distribution system. A refiner shipping batches of gasoline from a refinery decides whether to comply using flat limits or averaging limits. If the flat limit for a property such as sulfur is chosen, every batch of gasoline must meet the flat limit. If averaging is chosen, the refiner assigns different batch limits for each batch (never exceeding the cap limit), and within an 180-day period batches exceeding the averaging limits must be offset by batches cleaner than the averaging limit.

A key feature of the CaRFG regulations is the "California Predictive Model," which refiners may use to vary the properties of a gasoline formulation as long as the model shows that emissions of hydrocarbons, NOx, and potency-weighted toxics will not increase compared to a blend meeting all of the cleaner-burning gasoline specifications. The Board adopted the California Predictive Model in 1994. The model is based on a wide variety of test programs evaluating the effect of fuel properties on emissions, and indicates that increases in oxygen content will increase emissions of NOx and potency weighted toxics, and will decrease emissions of hydrocarbons. Except where the mandatory wintertime oxygenates requirements remain, a refiner is allowed to ship a batch of gasoline from the refinery with an oxygen content below 1.8 wt.% — including zero oxygen — as long as the Predictive Model shows that the combined properties of the batch will not increase emissions HC, NOx or potency-weighted toxics compared to the corresponding flat or averaging limits in the regulations.

Given the Predictive Model mechanism, in the near future the California regulations will mandate oxygen *only* during the wintertime in the six counties in the greater Los Angeles area. This provides significantly more oxygenate flexibility than do the federal RFG regulations with their year-round 2.0 wt.% minimum oxygen requirement. It is important to note, though, that a specific oxygen mandate is only one reason why refiners may use MTBE or other oxygenates. It is clear that MTBE has provided blending characteristics that have significantly aided refiners in meeting the CaRFG standards. And even without an oxygen mandate, ethanol as the most likely oxygenate substitute for MTBE would be expected to be in widespread use in California because of the continuing wintertime oxygenates requirements in the Los Angeles area and the octane benefits provided by ethanol.

A Waiver of the Mandatory Oxygen Requirement in California Is Justified and Will Not Result in Air Quality Degradation

Section 211(k)(2)(B) authorizes the Administrator to waive the 2.0 wt.% minimum oxygen requirement for federal RFG "for any ozone nonattainment area upon a determination by the Administrator that compliance with such requirement would prevent or interfere with the attainment by the area of a national primary ambient air quality standard." Therefore it is clear that Congress recognized that the minimum oxygen requirement could be waived under certain circumstances where other unacceptable environmental harm could occur. The ARB will be revising its CaRFG program this year, and continuing the oxygen mandate will make it more difficult to maintain the emission reductions benefits need for

California's SIP. Additionally, it is clear that maintaining the oxygen mandate will significantly slow down the removal of MTBE from California gasoline, and thus increase the risk of water contamination. For both these reasons, it is appropriate and permissible for the Administrator to waive the inflexible oxygen requirement.

Furthermore, the existence of the CaRFG regulations place California in a unique position with regard to the federal RFG program, as recognized in the "California enforcement exemption" contained in 40 CFR §80.81. Because California has historically experienced the worst air quality in the nation and has long been engaged in pioneering efforts to reduce the contribution of motor vehicles to air pollution, the state has been granted unique authority to administer a state fuels program to reduce motor vehicle emissions. California is the only area in the country where the federal RFG requirements apply in conjunction with comprehensive and aggressive state standards for cleaner burning gasoline. While the VOC emissions reductions achieved by the CaRFG regulations are similar than those that will result from the year 2000 Phase 2 federal RFG standards, the California standards achieve more than twice the NOx reductions and about 50 percent greater toxics reductions. Since the primary reason we control both VOCs and NOx is to reduce ozone formation, on balance the CaRFG program will achieve significantly greater reductions of ozone formation and toxics than will the federal RFG program in any other state.

As MTBE is phased out of California gasoline, ethanol is almost surely the only oxygenate that would replace MTBE under a continuing federal RFG 2.0 wt.% minimum oxygen mandate. The other possible oxygenates are ETBE (ethyl tertiary butyl ether), TAME (tertiary amyl methyl ether) and TBA (tertiary butyl alcohol). These three oxygenates present the same sort of threat to groundwater contamination as MTBE and therefore would not be acceptable MTBE substitutes. It is ARB's understanding that ethanol is the only oxygenate being seriously considered by California refiners to be used in place of MTBE. Accordingly, all analyses of the effect of the federal RFG oxygen mandate in California where MTBE is no longer used must assume that ethanol is used as the substitute oxygenate.

The substantial economic impact of the universal use of ethanol in all federal RFG areas in California stems from the costs of obtaining the necessary volumes of ethanol and the costs associated with production of the base gasoline blendstocks into which the ethanol will be blended. Attached are two reports that include discussions of the costs of oxygenating California gasoline with ethanol exclusively: The California Energy Commission (CEC) January 1999 Report, "Supply and Cost of Alternatives to MTBE in Gasoline," and the MathPro March 18, 1999 analysis conducted for Chevron Products Company and Tosco Corporation, "Potential Economic Benefits of the Feinstein-Bilbray Bill."

If MTBE is completely phased out of California gasoline in about three years and the federal RFG oxygen mandate is not waived, California refiners would need as much as 75,000 barrels a day of ethanol per day to meet demand according to the CEC Report. The United States produces about 80,000 barrels per day of ethanol to meet current demand for

all uses, with another 30,000 barrels per day of spare production currently idle. California will have to compete with other states if ethanol demand increases quickly and dramatically.

A key blending characteristic of ethanol is that when it is used as an oxygenate in gasoline, it significantly raises the gasoline's Reid vapor pressure (RVP), a measurement of the propensity of the gasoline to evaporate. Adding between 5 and 10 percent ethanol to gasoline (resulting in oxygen contents between about 1.9 and 3.5 wt.% oxygen) will increase the RVP of the gasoline by about 1 pound per square inch (psi); the increase with MTBE is only about 0.1 psi. This means that in the summertime high-ozone RVP control period (which stretches from March 1 through October 31 in the greater Los Angeles area), refiners using ethanol to satisfy the federal RFG oxygen mandate will have to make a blending gasoline having an RVP about 1 psi lower than the applicable standard. The federal RFG regulations do not provide a special RVP allowance for gasoline containing ethanol. In California, the ARB recently eliminated an RVP waiver for gasoline containing 10 percent ethanol because it found that the ozone benefits associated with the exhaust emissions from elevated-RVP gasoline are overwhelmed by the increase in ozone-forming potential from the increased evaporative emissions.

In order to produce a blending gasoline with a sufficiently low RVP, more of the lighter components must be removed from the gasoline. This means a substantial loss of volume that must be made up, and the need to find an alternative market for the lighter components that have been removed. Ethanol has never been used in the summertime on a widespread basis in a major metropolitan area that is subject to the more stringent VOC-control Region 1 RVP standard.

Continuing the federal RFG oxygen mandate in California despite the MTBE phase-out will significantly increase the cost of gasoline in the state, and could cause substantial disruptions in our gasoline distribution system, *with no corresponding ozone air quality benefits.* The increased costs attributable to the federal oxygen mandate will significantly reduce the ability of the ARB to adopt other ozone-reducing elements when it adopts "California Phase 3 Reformulated Gasoline" (CaRFG3) regulations in December of this year as directed by Governor Davis. It is also possible that there will be no cost-effective way for the federal RFG areas in California to be supplied with gasoline that is universally blended with ethanol and meets all state and federal air quality requirements. In this case as well, a waiver of the federal RFG oxygen mandate in California would be necessary to avoid increases of ozone-forming emissions in the state.

There is an *immediate* need for the waiver of the federal RFG mandatory oxygen requirement. In order to complete the phase-out of MTBE by December 31, 2002 or earlier, the refiners must start immediately with the planning and design phases of the necessary refinery and distribution system modifications. It is clear that the approach taken by a refiner could differ substantially depending on whether upon completion of the modifications the refiner will be subject to a mandatory federal RFG minimum oxygen requirement. Without the mandatory oxygen requirement, the refiner can design in greater flexibility and less costly

processes. But in order to make informed planning and design decisions, the refiner must know in 1999 — not just in 2001 or 2002 or 2003 — that the mandatory oxygen requirement is being waived. A waiver or other elimination of the oxygen requirement after the refinery investments are made could result in the worst of all worlds for a refiner who has relied on the continued imposition of the requirement.

Moreover, there will be a major effort to eliminate the use of MTBE in various areas of the state considerably before December 2002. For instance, we expect there will be areas in the state where drinking water supplies are so vulnerable that MTBE will have to immediately be eliminated from the area's gasoline. Where the area is subject to the federal RFG requirements, there may be no time to wait the projected 18 to 24 months to complete the modifications to storage tanks, unloading facilities and blending equipment necessary to use ethanol as an alternative oxygenate. Other oxygenates may either be unavailable or present essentially the same threat of groundwater contamination as MTBE. In such a case, refiners must be permitted to distribute nonoxygenated gasoline — as long as it meets all of the requirements of our California Predictive Model requirements and federal RFG requirements other than minimum oxygen.

One final aspect of an oxygen waiver bears emphasis — even with a waiver of the federal RFG oxygen mandate, *a significant portion of California gasoline would still contain ethanol.* The MathPro analysis indicates that from a cost-savings perspective, the optimal share of nonoxygenated CaRFG would be less than 50 percent. Moreover, ethanol would still be needed to meet the continuing requirement for oxygenated gasoline in the winter in the greater Los Angeles area.

California Air Resources Board
April, 1999

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GOVERNOR GRAY DAVIS

March 29, 1999

Honorable Dianne Feinstein
United States Senate
331 Senate Hart Office Building
Washington, DC 20510

Subject: Support for MTBE legislation

Dear Senator ~~Feinstein~~: Diane

I am writing to offer my strong support for your legislation to waive the 2% oxygenate requirement for reformulated gasoline under the Clean Air Act.

As you know, many California communities have suffered significant contamination of their drinking water sources from the gasoline oxygenate methyl tertiary butyl ether (MTBE). MTBE is known to cause cancer in animals and has been identified by several major scientific bodies as having the potential to cause cancer in humans.

Data from the Lawrence Livermore National Laboratory shows that MTBE has been detected at over 4,600 leaking underground fuel tank sites after inspecting only half the known sites. Over 60% of the reservoirs in the state have detected MTBE, and many public drinking water sources in areas like Santa Monica, Santa Clara, Sacramento and Lake Tahoe have been contaminated and shut down due to MTBE.

On March 25, I made a determination that the use of MTBE in gasoline poses a significant risk to California's environment. That determination, required by state law, was based upon a study by the University of California, peer review comments of that study by the U.S. Geological Survey, and the Agency for Toxic Substance and Disease Registry, and testimony heard at three days of public hearings conducted by the California Environmental Protection Agency.

As a result of that determination I have directed the appropriate state regulatory agencies to devise and carry out a plan to begin an immediate phase-out of MTBE from California gasoline, with 100% removal to be achieved no later than December 31, 2002.

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However, in order for California to achieve this necessary goal without a major disruption of our fuel supply, it is imperative that Congress give states the flexibility to meet federal Clean Air Act emission standards without mandatory use of oxygenates. Your legislation provides exactly the flexibility California needs without weakening air quality regulations.

The California Energy Commission and the University of California study have warned that an immediate ban or precipitous phase-out of MTBE would result in catastrophic price increases with a heavy impact on our economy. Most California refineries and terminals are not equipped to handle ethanol, the only viable alternative oxygenate, at this time. The re-tooling necessary to shift to an alternate such as ethanol would take a period of years and a multi-billion dollar capital investment by the oil and gas industry. The amount of ethanol California would need to import from other states and countries to cover an immediate ban on MTBE would amount to half of all the ethanol produced in the United States last year.

Finally, I take seriously the admonition by the UC study that California learn from its mistake with MTBE and research the environmental impacts of any alternative before mandating its widespread use. Therefore I have ordered the California Air Resources Board and the State Water Resources Control Board to conduct an analysis of ethanol and any other alternative oxygenate in air, surface water and ground water. I am also directing the Office of Environmental Health Hazard Assessment to prepare an analysis of the health risks of ethanol in gasoline, including the products of incomplete combustion.

Ethanol may very well play a large role in California's future fuel supply. But if California, or any state, can meet the emission standards of the Clean Air Act -- with or without the use of oxygenates -- we should be permitted to do so.

Having that flexibility now will allow us to stop any further contamination of our drinking water while we transition away from MTBE. But your legislation is critical to California's ability to invest in a long term solution. One that protects our water, keeps us on the road to clean air, and ensures an uninterrupted, affordable fuel supply.

I thank you for your leadership on this important issue. Please know that I will support your legislative efforts in any way I can.

Sincerely,

Gray

GRAY DAVIS