

Testimony

of

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Introduction

Good afternoon Mr. Chairman and members of the Committee. My name is Douglas Durante and I am testifying on behalf of the Clean Fuels Development Coalition (CFDC) where I have served as executive director for the past 10 years. CFDC actively participated in the legislative and regulatory aspects of the mobile source provisions of the Clean Air Act Amendments of 1990, including serving on the EPA advisory committee that negotiated the final rules for the successful Reformulated Gasoline Program (RFG) provisions. It is important to note that after thorough debate, the RFG amendments passed the Senate floor with overwhelming bipartisan support by a resounding final vote of 69-30. The Clean Air Act Amendments of 1990 went on to pass the House 401-21, and the Senate 89-10. Many of you on this Committee were instrumental in that effort.

Background on CFDC's Legislative And Regulatory Involvement

CFDC is a non-profit organization with a diverse membership of more than two dozen member companies representing a variety of industry interests that include fuel oxygenate producers, American automobile manufacturers, an independent U.S. refiner, and others involved in the energy, agricultural and clean fuel businesses. Because of these diverse interests, CFDC has been involved in supporting clean fuel legislation and the development of national energy strategy which has fostered the development of clean fuel technologies.

CFDC supports the continued implementation of existing federal and California cleaner burning fuel programs, which have the demonstrated ability to reduce air pollution. Many of CFDC's member companies produce and market the very products that are used to make gasoline burn cleaner. These include fuel oxygenates which are not only used to make California's gasoline burn cleaner but are also used in many other parts of the country that have air quality problems associated with the combustion of gasoline.

I should clarify that this testimony is being presented on behalf of CFDC and with the exception of our automobile manufacturers who have, at this time, taken a position of neutrality, all of our members strongly oppose S-1576.

Position Summary

We were asked to direct our testimony to the merits of a prescribed formula that includes a 2.0 percent (wt) oxygen level such as in federal reformulated gasoline as compared to a performance standard. We believe those merits are considerable and oppose legislative efforts to change the federal formula. We were also asked to comment on S.1576 and the progress of the RFG program. Simply put, RFG has been a fuel quality specification that has reduced emissions of carbon monoxide; more harmful toxic compounds, like benzene; and those emissions that contribute to the

formation of ground level ozone pollution, or urban smog. This fuel quality specification, to the credit of industry and government, has been administered safely, efficiently, cost-effectively, required no changes in consumer fueling and driving habits, and has had no adverse effects on vehicle performance. Reformulated gasoline, with oxygenates, has:

- X Exceeded expectations for emissions and air quality benefits.
- X Cost less than projected at under 3 cents per gallon nationwide.
- X Consistently outperformed other formulations and substitutes.
- X Reduced emissions in all vehicles using it, even more so in older cars.
- X Reduced the consumption and import of crude oil.
- X Provided states with an easily implemented option for reducing mobile source pollution.
- X Gained widespread support throughout the U.S. based on its three years of success.

Some have promoted legislative change in order to address concerns of MTBE in water. We do not believe this objective can be attained simply by allowing California refiners to use the California Air Resources Board (CARB) formula. Other proponents of change are refiners who desire "flexibility" to meet emission reductions. The effect of providing such flexibility will be to strike down the prescribed federal formulation which has been extremely effective in improving air quality and would necessitate amending the Clean Air Act.

As for the first objective relating to MTBE in water, we believe the focus of any corrective measures should be on the leaking gasoline tanks. Allowing a substitute formula that will still use MTBE as would be likely, is hardly the solution. Yet we believe it is worth finding a solution so that oxygenates remain in gasoline due to the many benefits they provide. The leaking gas tanks pose a threat to public health from exposure to a variety of chemical compounds currently in gasoline and must be dealt with.

The second objective of "flexibility" is unwarranted. In addition to its success in reducing ozone, federal RFG is available and inexpensive and safe for its intended use. It does not impose any unique burden for California refiners. With the use of the

complex model beginning this year, refiners indeed have numerous combinations they can utilize to meet the federal standard which were not available several years ago when this legislation was first introduced. Most importantly, removing the oxygen requirement could result in a loss of air quality benefits. Amending the Clean Air Act would set a dangerous precedent for a nationwide undermining of what has been a successful program.

Legislative And Regulatory Background of Reformulated Gasoline

The authors of the Clean Air Act Amendments of 1990 recognized the increasing impact that emissions from the combustion of fuels played in polluting our nation's cities. They also recognized the value of reformulating gasoline to burn cleaner. The provisions, which passed the House and Senate with significant bi-partisan support, included a primary specification for clean burning oxygen content in gasoline. In particular, two oxygen specifications were included in the Act: 2.7 percent (wt) for the control of carbon monoxide pollution during the winter months, the other at 2.0 percent (wt) to reduce harmful toxics year-round, and smog forming emissions in the summer high ozone season. The year-round program is commonly known as the federal reformulated gasoline, or RFG program. It is important to note that although the Act specified the level of oxygen for these programs, it provided industry with flexibility to choose which fuel oxygenate to use. It allowed refiners to meet the standards through averaging, and provided for compliance flexibility by establishing performance standards.

With the passage of the Act as the foundation, the United States Environmental Protection Agency (EPA) embarked on an extensive regulatory negotiation process that reconciled the interests of the refining, petrochemical, and automotive industries and the environmental community. This regulatory negotiation process resulted in the final guidance for the wintertime oxygenated fuel program and the final regulatory requirements for the federal RFG program. Although both programs have set clean burning gasoline specifications to reduce emissions, today's reformulated gasolines contain many of the same ingredients as those found in conventional gasoline, only at more optimal levels.

Cleaner Burning Reformulated Gasoline Program Success

We should all acknowledge that there is a lot we do not know about ozone formation. What we do know, however, is that RFG is working all over the country. Southern California enjoyed a 40 percent reduction in ozone exceedances the summer after RFG was introduced and last year experienced the cleanest summer on record. Phoenix opted into the program in 1997 and had the first exceedance-free ozone season in 10 years. The presence of oxygenates in federal RFG sold in California has yielded air quality and health benefits well in excess of the regulatory requirements. RFG may be

providing some benefits we do not yet fully understand, and without such an understanding, it is impossible to guarantee the equivalency of a different recipe. For example, some of the models used to predict reductions not only fail to recognize off-road sources, which I will touch on in a moment, but may grossly underestimate the positive impact these fuels have on high emitters in the vehicle fleet. Failure to provide equivalency will only hurt the driving public and the small businesses which will have to make up the difference in achieving reductions in ozone and PM. When considering the success of the program, why make changes? The effects of allowing areas to use less than the RFG formula may not be cleaner fuels, cleaner air, or improved public health. Rather it will increase petroleum industry market share and provide more profits for some refiners.

We have done a great deal of work with the states over the past several years as they struggle with fuel choices as part of their overall clean air strategies. Since RFG is achieving and even exceeding required reductions wherever it is being used, states know exactly what they are getting. It has been our experience that since RFG is a specified, non-negotiable formula it is exactly what they are looking for. The EPA approves it, the amount of reductions and credits are understood, and the federal government helps states regulate and enforce the program. All of those benefits are lost when a state-prescribed performance fuel is adopted.

The specter of a patchwork, mismatched quilt of fuel programs presents the potential for an environmental nightmare. Almost any oil company would concede that such pockets of designer fuels are likely to be much more expensive and many are on record saying just that. The uniformity of RFG and the fact it can be exchanged in the marketplace are key factors in keeping the price down. Without that uniformity, overall fuel quality suffers and you could wind up with fuels that meet the letter of the law for some pollutants but send others through the roof. The driving force in fuel specifications would be getting State Implementation Plan (SIP) credits rather than improving overall public health. The binding parameters of the RFG Program make the ground rules clear to everyone and air quality objectives are more likely to be met. This eliminates the chance of states tinkering with a localized program every year and allowing inferior fuels to be in the marketplace.

Widespread support for RFG

The overall success of the RFG program has resulted in a broad base of support. Due to the mature market for RFG already in place, it is often possible to see RFG prices under conventional gasoline. Currently one-third of all U.S. gasoline, serving 80 million Americans, is RFG with oxygenates. The Department of Energy and the EPA have expressed strong support for the program and states continue to opt-in to the program, such as when Missouri recently elected to use RFG. In December 1997, 12 states and

the District of Columbia voluntarily elected to remain in the RFG program, including committing to the more stringent Phase II RFG requirements which will take effect in the year 2000. The benefits are not going unnoticed by other states. Just last week the 22 member Governors' Ethanol Coalition wrote Missouri Governor Carnahan congratulating him for that decision. In that letter the Governors said, "the Coalition is a strong supporter of this program that offers significant benefits to public health through improved air quality. In the three years since the inception of the federal reformulated gasoline program, it has been successful in reducing excessive ozone levels at a cost of less than three cents per gallon over conventional gasoline."

Fuel Oxygenates Enhance Energy Security and Reduce Crude Oil Imports

In addition to potential negative impacts on air quality gains, there is another very important issue that should be considered -- energy security and the diversity of supply.

During the CAA deliberations there was considerable interest by Congress in marrying this program with our energy security programs and goals. By requiring oxygenates as a clean source of octane in lieu of aromatics, Congress was jump-starting the market for ethanol, ETBE, and MTBE. Ethanol production in the U.S. increased 75 percent since the 1990 Clear Air Act. In addition to the direct displacement of gasoline, oxygenates further reduce imports by extending the volume of oil through increased gasoline yields. Refiners can get 1-2 percent more gasoline out of a barrel of oil by avoiding high end refining needed to reach high octane and add high octane oxygenates instead. This reduced processing requirement results in less stationary source emissions as well.

The transportation sector in this country is over 95 percent reliant on petroleum based fuels. Over 50 percent of this petroleum is now coming from foreign sources. The U.S. Department of Energy projects the nation will continue this trend and reach 70 percent reliance on crude oil imports by 2010. Today, more than ever, the nation's reliance on imported oil jeopardizes our security and economy.

Improved energy security was a factor in establishing the federal formula and was reaffirmed in 1992 when the United States Congress recognized this threat and enacted the Energy Policy Act of 1992 (EPACT). EPACT requires the Secretary of Energy to determine the technical and economic feasibility of replacing 10 percent of projected motor fuel consumption with non-petroleum alternative fuels by the year 2000 and 30 percent by 2010. Oxygenates, which are contained in nearly half of our nation's gasoline, could continue to make a major contribution towards reaching these energy security goals. Without the federal and California reformulated gasoline programs, a significant means of achieving this goal will be lost. The displacement of petroleum-based products achieved through the use of these clean air additives should not be overlooked. Most of our other national goals for alternative fuel use have not been

meet, due in part to the massive task of retooling automobiles and establishing a new fuels infrastructure. Utilizing oxygenates in gasoline requires no such changes. The most definitive study to date on the impact of RFG on reducing imports was done last year by the General Accounting Office which found that more than 300,000 barrels of foreign oil were being displaced annually. As final note in this regard, as far back as 1992, the U.S. Alternative Fuels Council concluded that "reformulated gasoline, as the carrier of alternative fuels, is the least costly, most efficient way to substantially introduce these alternative fuels in the United States."

To the extent that ethanol is used in RFG, particularly in ETBE, the potential environmental and energy security benefits may be even greater. I should also point out that the development of ethanol facilities in California, which currently look very promising, would be adversely affected by a removal of the oxygen specification. Along those same lines both the ethanol and MTBE industries have considerable capital investment in establishing sufficient supplies and infrastructure to meet the demand resulting from the federal formula. Much of that would be at risk if oxygen were an "optional" component of RFG.

Concerns With the CARB Formula

The first problem is the focus on the mass of emissions without regard to the level of toxicity or reactivity. Not all VOCs are alike in terms of toxicity or reactivity. Removing the oxygen standard could result in an increase of more carcinogenic compounds at the expense of less toxic ones and produce fuel that is more, rather than less, reactive -- both because of an increase in the use of aromatics. A similar problem is almost certain to be true of fine particulates, or soot, which have just recently been the subject of new federal air quality standards. We do not yet know precisely how motor fuels contribute to PM 2.5, which makes relaxation of RFG all the more problematic.

The second problem is the potential degradation of air quality from beyond just mobile sources. Off-road vehicles, small engines used in portable power equipment, and other non-regulated motors also use RFG and benefit from the oxygen content in the gasoline through reduced carbon monoxide emissions. These off-road sources are also estimated to be responsible for 10 or more percent of Volatile Organic Compounds (VOCs) in the emissions inventory nationwide according to DOT and EPA statistics. Both of these increases will ultimately tilt the playing field against the car manufacturers (and other stationary sources), which will have to make up the differences in terms of actually reducing ozone itself (rather than "mass" emissions) and PM 2.5 as well.

Conclusion

Throughout the development and implementation of these important federal and state clean fuel programs, the petroleum refining industry has received a substantial amount

of flexibility. Federal and state agencies have consulted the affected stakeholders and provided allowances to enable industry to deliver a complying product with the least amount of cost and disruption. In addition, after promulgation of the RFG program regulations, EPA responded to industry requests for additional flexibility by applying liberal interpretation to sections of the regulations pertaining to both modeling and in-use compliance.

With the need and interest for additional air quality control measures on the rise, **successful** fuel quality strategies are the most immediate and cost-effective way to obtain valuable air quality benefits. The introduction of inferior seasonal substitutes such as simply lowering the volatility of gasoline has proven to be ineffective in the goal of reducing ground level ozone. Ultimately this could affect the ability of some areas to achieve air quality benefits and be a significant economic impediment to the economies of these areas.

For all areas of the U.S., RFG with oxygenates remains a common sense, cost-effective means for both fuel and air quality improvement.

I respectfully urge this committee to reflect on these comments in consideration of any legislation to alter this program. Such changes could result in a decrease in fuel supplies, reduced competition, lower fuel quality and driveability problems, and higher prices for the consumer.

S.1576 will not improve air quality, casts a dangerous precedent for other states in that it actually could degrade air quality and wipe out the tremendous strides that have been made to date.

Mr. Chairman, thank you for this opportunity to testify on this important issue. I would also like to request that, in addition to this testimony, CFDC be allowed to provide information for the record in support of our comments.

