

**ROBERT PERCIASEPE  
ASSISTANT ADMINISTRATOR  
OFFICE OF AIR & RADIATION  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
BEFORE THE  
SUBCOMMITTEE ON HEALTH AND ENVIRONMENT  
OF THE  
COMMITTEE ON COMMERCE  
U.S. HOUSE OF REPRESENTATIVES**

**March 2, 2000**

Thank you, Mr. Chairman and Members of the Subcommittee, for the invitation to appear here today. I am pleased to have this opportunity to share information with the Subcommittee on the environmental benefits of the reformulated gasoline or RFG program, to provide an update regarding the Agency's efforts to move forward on the recommendations of the Blue Ribbon Panel and future steps that should be taken to address issues regarding the use of oxygenates in the program. In addition, I would like to take a few moments to discuss the status of the request by the state of California for a waiver of the statutory oxygen content requirement.

My testimony today will stress the following: first, the RFG program works and has provided significant air quality improvements, second, growing concerns about MTBE need to be addressed, and third, Congress must act.

An understanding of the history of the federal RFG program is important in order to put the issues surrounding the use of the oxygenates methyl tertiary butyl ether (MTBE) and ethanol in perspective. As you know, the Clean Air Act Amendments of 1990 put in place a number of programs to achieve cleaner motor vehicles and cleaner

fuels. Over all, these programs have been highly successful. Congress struck the balance between vehicle and fuel emissions control programs after extensive deliberation. The RFG requirements also emerged as a program designed to serve Congressional goals, including air quality improvement, enhanced energy security by extending the gasoline supply through the use of oxygenates, and encouraging the use of renewable energy sources.

The federal reformulated gasoline program introduced cleaner gasoline in January 1995 primarily to help reduce ozone or smog levels. Unhealthy smog levels are still of significant concern in this country, with over 30 areas still in nonattainment of the current 1-hour ozone standard, and more areas are expected to exceed the new, 8-hour ozone standard, should it take effect.

Ozone has been linked to a number of health effects concerns. Repeated exposures may increase susceptibility to respiratory infection, cause lung inflammation, and aggravate pre-existing respiratory diseases such as asthma. Other health effects attributed to smog exposures include significant decreases in lung function and increased respiratory symptoms such as chest pain and coughing.

RFG is an effective way to reduce smog precursors such as volatile organic compounds (VOCs) and oxides of nitrogen (NO<sub>x</sub>). The Clean Air Act Amendments of 1990 required that RFG contain 2.0 percent minimum oxygen content by weight. The first phase of the RFG program, from 1995 through 1999, required average reductions of smog-forming volatile organic compounds and toxics of 17% each, and NO<sub>x</sub> by 1.5%. Phase I RFG, on average, exceeded these requirements for VOC, NO<sub>x</sub> and toxics reductions. Most notably, overall toxics reductions were about 27% versus a 17%

requirement. This year, the second phase of the RFG program will achieve even greater average benefits: a 27% reduction in VOCs, 7% reduction in oxides of nitrogen emissions and a comparable toxics reduction. These reductions for RFG are equivalent to taking more than 16 million vehicles off the road. States rely on the air quality benefits of the RFG program to demonstrate in their State Implementation Plans (SIPs) that they can achieve the ozone standard. In fact, seventeen states and the District of Columbia currently rely on reduction credits from the RFG program in their attainment SIPs.

The federal RFG program is required in ten metropolitan areas which have the most serious smog pollution levels. Although not required to participate, some areas in the Northeast, in Kentucky, Texas and Missouri have elected to join, or “opt-in” to the RFG program as a cost-effective measure to help combat their air pollution problems. At this time, approximately 30% of this country’s gasoline consumption is cleaner-burning reformulated gasoline.

Ambient monitoring data from the first year of the RFG program (1995) also showed strong signs that RFG is working. RFG areas showed significant decreases in vehicle-related VOC concentrations. One of the air toxics controlled by RFG is benzene, a known human carcinogen. The benzene level at air monitors showed the most dramatic declines with a median reduction of 38% from the previous year.

Neither the Clean Air Act nor EPA requires the use of specific oxygenates in RFG. The statute and, subsequently, EPA’s regulations only specify the oxygen content by weight; they do not specify which oxygenate to use. Both ethanol and MTBE are used in the current RFG program, with fuel providers choosing to use MTBE in

about 87 percent of the RFG mainly because of cost and ease of transport reasons.

Despite the air quality aspects of oxygenates in RFG, there is significant concern about contamination of drinking water by MTBE in many areas of the country including California, and Maine. EPA is very concerned about the widespread detection of MTBE in drinking water. Current data on MTBE levels in ground and surface waters indicate widespread and numerous detections of MTBE at low levels. The United States Geological Survey has found that the occurrence of MTBE in groundwater is strongly related to its use as a fuel additive in an area, finding detections at low levels of MTBE in 21% of ambient groundwater tested in areas where MTBE is used in RFG compared to 2% of ambient groundwater in areas using conventional gasoline.

In response to concerns associated with the use of oxygenates in gasoline, the Administrator established a blue ribbon panel of leading experts from public health and scientific communities, water utilities, environmental groups, industry, and local and state government, including California, to assess issues posed by the use of oxygenates in gasoline in California and the rest of the nation. The panel held monthly meetings beginning in January 1999, and presented its recommendations to the Clean Air Act Advisory Committee in July. This panel grappled with a number of complex issues, including an assessment of alternatives to the use of MTBE to ensure that current air quality benefits of RFG are continued and the additional benefits of the second phase of the program are not endangered.

The panel's recommendations to the Administrator fall under the following broad categories:

- C Prevent leaks through improvement of existing programs
- C Remediate existing contamination
- C Amend the Clean Air Act to remove the requirement that federal reformulated gas contain 2% oxygen (by weight)
- C Maintain current air benefits (no environmental backsliding)
- C Reduce the use of MTBE
- C Accelerate research on MTBE and its substitutes

The panel recommended that MTBE be significantly reduced. Given the numerous and diverse sources of potential release into the environment and the problems associated with cleaning it up once it is released (due to solubility, rapid movement, and very slow degradation), EPA is very concerned that MTBE presents a significant risk to the nation's drinking water supply. Consequently, EPA believes that a comprehensive approach must include consideration of either reducing or eliminating the use of MTBE as a gasoline additive in an expeditious and practicable time frame. We believe there are alternatives, such as ethanol, but adequate lead time is necessary.

EPA has initiated a number of actions in response to the panel's recommendations. This will include developing a drinking water standard under the Safe Drinking Water Act and establishing a water quality standard under the Clean Water Act, and enhancing underground storage tank program compliance to a 90% level in 2000. The Agency is currently funding a grant with the University of California-Davis to evaluate the effectiveness of leak detection technologies. EPA is also conducting a \$1 million technology demonstration project for the clean up of MTBE contaminated

aquifers. In addition, where possible, we will work to provide more flexibility to states and refiners as they move to decrease the use of MTBE in gasoline. For example, a proposed rulemaking that will account for the impact on ozone formation from CO emission reductions associated with ethanol use would provide flexibility.

While we will pursue administrative remedies under our various authorities to achieve this goal, we believe Congress needs to address the complex set of issues surrounding the use of oxygenates in gasoline through national legislation.

Finally, Mr. Chairman, I want to discuss the status of the state of California's request for a waiver from the reformulated gasoline (RFG) program's oxygen requirement. Before I discuss details of the California waiver, I will note that this request marks the first time in the history of the RFG program that a state has made such a waiver request. In addition, while requesting a fuel waiver, California was in the process of changing their fuel regulations which was completed in December 1999. In March last year, Governor Davis announced his intention to phase out the use of MTBE in California. A month later, California sent a letter requesting a waiver under Section 211 (k)(2)(B). As you know, under the Clean Air Act, EPA may waive the oxygen mandate, in whole or in part, "...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 [NAAQS]." This initial letter did not contain the technical analysis to demonstrate how the oxygen requirement might actually prevent or interfere with the attainment of the NAAQS in California. In the course of the process, CARB has not only changed their fuel but modified the modeling assumptions

surrounding the program. EPA and CARB have worked cooperatively to complete the submission. This process was completed on February 9, 2000, when California submitted all the needed information necessary for EPA to begin its comprehensive review.

In order to act on the California request, the Agency must conduct an independent evaluation of the data and modeling, as well as the other information submitted by the state in support of its request for a waiver from the federal RFG oxygen requirement. This is not a simple task. It will require a review of the detailed modeling assumptions associated with the waiver request. We hope to complete our assessment by early summer. Based on our productive discussions with the California Air Resources Board up to this point, we fully expect that we will meet this schedule.

If the statutory conditions to grant the waiver are met, EPA would be required to provide public notice of our decision. Such procedures include a comment period of at least thirty days.

Mr. Chairman, in closing, we will move forward to thoroughly review California's waiver request and arrive at a timely decision concerning this vital matter. We are committed to working with the Congress, as well as the States and the regulated community to address the Blue Ribbon Panel's recommendations to the Administrator. We also are committed to working with Congress to provide a targeted legislative solution that maintains our air quality gains and allows for the reduction of MTBE, while preserving the important role of renewable fuels like ethanol.

This concludes my prepared statement. I would be happy to answer any questions that you may have.