



Program Update

EPA's Decision on California's Request for Waiver from the Reformulated Gasoline Program Oxygen Requirement

The U.S. Environmental Protection Agency (EPA) is denying California's request for a waiver from the oxygen requirement in cleaner-burning reformulated gasoline (RFG).

EPA's Decision

Congress established the RFG program to improve air quality in some of our nation's most polluted urban areas, enhance energy security by extending the gasoline supply through the use of oxygenates, and encourage the use of domestically-produced, renewable energy sources. The Clean Air Act requires that reformulated gasoline contain oxygen to reduce harmful emissions. In order to be granted a waiver from this Congressional mandate, a state must provide clear evidence that the requirement will interfere with being able to meet the national health-based standards for clean air.

In April 1999, California Governor Gray Davis requested a waiver from the oxygen requirement, contending that the Clean Air Act oxygen mandate impeded California's ability to further reduce smog-forming oxides of nitrogen (NO_x). Governor Davis' request for a waiver closely followed his announcement that the state would ban the use of the oxygenate methyl tertiary butyl ether (MTBE) starting in 2003.

California's waiver request is based on the assertion that additional NO_x reductions are needed in California in order to attain the National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter. California claimed that without the oxygen requirement, greater NO_x reductions would be achieved with their California RFG Phase 3 (CaRFG3) fuel. California's assertion is based primarily on the relationship between fuel oxygen and NO_x formation, claiming that NO_x increases with oxygen in the fuel and therefore the requirement for oxygen in RFG prevents the maximum amount of NO_x reduction from CaRFG3.

EPA agrees with California's assertion that NO_x emissions would decrease with a waiver. Such a waiver would, however, at the same time result in an increase in carbon monoxide (CO) emissions. CO, like volatile organic compounds (VOCs) and NO_x, contributes to ozone or smog. In addition, VOC emissions may increase or decrease, resulting in an uncertain impact on ozone. This uncertainty is largely the result of significantly increased gasoline volatility due to commingling, when ethanol-oxygenated gasolines and gasolines without ethanol are mixed in vehicle fuel tanks. As a result of this uncertainty, California has not clearly demonstrated the impact on smog that would occur from a waiver of the oxygen mandate.

Since the Agency is denying California's request based upon uncertainty associated with the effect of a waiver on ozone, EPA does not need to decide whether the expected reduction in NO_x from a waiver and the associated reduction in particulate matter (PM) would support a determination of interference with the PM NAAQS.

Background

In April 1999, the State of California requested a waiver from the federal oxygen requirement for reformulated gasoline. EPA has the discretion under the Clean Air Act to waive the Congressionally-mandated oxygen content requirement where EPA determines that compliance with the oxygen content requirement would interfere with attainment of the primary NAAQS in an ozone nonattainment area.

EPA communicated with California Air Resources Board (CARB) concerning its request, and CARB submitted additional information pertinent to the request for a waiver. On February 7, 2000, CARB submitted data which EPA determined made CARB's application complete.

Given the complexity of the issues involved, EPA carefully examined all of the information and analysis submitted by California, as well as that submitted by interested parties. The Agency also performed its own comprehensive analysis to evaluate the possible emissions effects of a waiver.

Health and Environmental Benefits of Cleaner Burning Gasoline

The goal of the RFG program is to reduce motor vehicle emissions of the pollutants that contribute to ozone, or smog, and toxic pollutants, such as benzene. Smog is formed when VOCs, NOx, and other pollutants such as CO react in the presence of sunlight. The RFG program sets limits for these pollutants that refiners must meet, regardless of the oxygenate they choose.

The clean air benefits of the RFG program are significant. The reformulated gasoline program reduces smog-forming pollutants by 105,000 tons and toxic pollutants by 24,000 tons annually. This is equivalent to eliminating the pollution from 16 million cars every year.

For More Information

You can access documents related to EPA's determination electronically on the Office of Transportation and Air Quality (OTAQ) Web site at:

www.epa.gov/otaq/rfg.htm

You can also contact the OTAQ Library for document information at:

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