

US EPA ARCHIVE DOCUMENT

**TESTIMONY OF
JEFFREY HOLMSTEAD
OFFICE OF AIR AND RADIATION
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
COMMITTEE ON ENERGY AND COMMERCE
ENERGY AND AIR QUALITY SUBCOMMITTEE
UNITED STATES HOUSE OF REPRESENTATIVES**

JULY 15, 2004

Thank you, Mr. Chairman and Members of the Subcommittee, for the invitation to appear here today. I appreciate the opportunity to discuss the vital role cleaner burning gasoline plays in improving America's air quality and to comment on the subject of gasoline prices and "boutique fuels." I also will explain the status of the Environmental Protection Agency's review of California's and New York's requests for a waiver of the oxygen content requirement in reformulated gasoline used in those States.

Background of Cleaner Burning Gasoline

Mr. Chairman, as you know, EPA began to improve the quality of motor vehicle fuel in the 1970's when unleaded gas was first introduced. Today, I would like to focus my comments on two clean fuel programs that are a direct result of the Clean Air Act Amendments of 1990: reformulated gasoline (RFG) and Tier 2 low sulfur gasoline. The purpose of both programs is to improve public health by reducing harmful exhaust from the tailpipes of motor vehicles. The RFG program began in 1995 and was designed to serve several goals. These include: (1) improving air quality by reducing ozone precursor pollutants; (2) reducing emissions of specific toxic pollutants such as benzene; and (3) extending the gasoline supply through the use of oxygenates. Every gallon of RFG is required to contain a minimum amount of an oxygenate,

such as ethanol or MTBE. EPA and the Department of Energy have estimated the cost of producing RFG to be approximately 4 to 8 cents per gallon greater than conventional gasoline. Of this amount, approximately half of this cost increment is due to the cost of the oxygen requirement itself. I should note that the average retail price of RFG today is only about 4 cents per gallon greater than conventional gasoline.

New regulations to control pollution under the Tier 2 Vehicle and Gasoline Sulfur Program began this year. This program, established in 1999, is the result of a collaborative effort involving a wide range of stakeholders. EPA worked closely with auto companies, oil companies, states, public health and environmental organizations, and others to design a stringent, but balanced program that all key stakeholders could support. The sulfur content of gasoline is being phased down nationwide over several years with a 120 parts per million (ppm) limit this year, a 90 ppm limit in 2005, and a final 30 ppm average limit set to take effect in 2006. Ultimately, these new standards will reduce the sulfur content of gasoline by up to 90 percent. As sulfur is being reduced from gasoline, tight tailpipe emissions standards are also being phased in for new passenger vehicles.

EPA estimates this Tier 2 program will prevent as many as 4,300 deaths, more than 10,000 cases of chronic and acute bronchitis, and tens of thousands of respiratory problems a year. The public health and environmental benefits of this program (more than \$25 billion) far exceed the costs to consumers. EPA estimates that the Tier 2 program only increases costs to consumers by about 1 cent per gallon today, and will still cost less than 2 cents per gallon when the program is fully phased in, in 2006.

We have been monitoring very closely the transition to the low sulfur gasoline program, and believe that it has been – and will continue to be – a smooth one. This success is largely

attributed to the fact that the Tier 2 program incorporates a number of flexibilities to ease the economic burden on the oil industry. These include:

- A market-based trading system, which allows companies to reduce costs by averaging, banking and trading sulfur levels among different refineries, between companies, and across time.
- A geographic phase-in program, which provides a slightly higher interim sulfur standard for gasoline sold in parts of the Western U.S. This program recognizes that this area is dominated by small capacity, geographically-isolated refineries that would have a more difficult time competing for engineering and construction resources to modify their refineries to meet the standards.
- A small refiner program, which gives small refiners more time to meet the standards, recognizing their financial challenges in raising capital for the de-sulfurization investments; and
- A hardship provision, which allows refineries to apply on a case-by-case basis for additional time and flexibility to meet the low sulfur standards, based on a showing of unique circumstances. Under this program, thus far EPA has granted hardship waivers to six refineries.

Cost of Gasoline

The retail price of gasoline is affected by many factors, and my colleague from EIA will provide further information on this subject. However, I would like to mention several key points:

- Worldwide crude oil prices are at their highest level since 1990 with West Texas Intermediate (WTI) oil prices reaching a 13-year peak of \$42.33 per barrel on June 1, 2004.
- Fuel demand continues to increase as Americans travel more. Over the past twenty years vehicle miles traveled (VMT) has increased five times faster than U.S. population.
- Since 1997, fleet-wide fuel economy has been relatively constant, ranging from 20.6 to 20.9 miles per gallon (mpg). Fleet-average fuel economy peaked in 1987 at 22.1 mpg, but has declined since then due to the increasing popularity of less fuel-efficient light trucks, particularly SUVs.
- The number of refineries in the U.S. has been declining steadily, while the capacity of the remaining refineries has been increasing. In 1990, the number of refineries in the U.S. was 205 with a capacity of 15.5 million barrels per day. In 2002, the number of refineries decreased to 153; with a capacity of 16.8 million barrels per day. As a result, the share of imported gasoline has nearly tripled over the last two decades.

Crude oil costs are the single largest component of gasoline prices, and account for nearly half of the cost of gasoline. Exhibit 1 shows that gasoline price fluctuations track very closely with crude oil prices. The chart shows the price of RFG since 2000 to the present, as well as the price of crude oil in that same time period. The price increase was essentially the same for both RFG and conventional gasoline.

With the exception of several instances of serious disruptions in the production and distribution system, such as pipeline breaks and refinery fires, fuel suppliers have provided a sufficient supply of gasoline to motorists. The run-up in gasoline prices earlier this year was primarily the result of a steep increase in crude oil prices. We believe that environmental regulations have had a minimal effect on gasoline prices. As I discuss below, additional state and local clean fuel requirements may pose challenges to fuel suppliers during times of market disruption.

Exhibit 2 tracks gasoline prices and crude oil prices from October 2003 to the present. Like the long term trend shown in Exhibit 1, this chart also indicates that the price of RFG tracks closely with the price of crude oil. The chart indicates the percentage of the cost of crude oil to the price of RFG at the pump for the time period of October 2003 to the present. The percentage is relatively constant, even during the period during which the Tier 2 low sulfur gasoline was being phased in, and during the transition from winter to summertime RFG. Thus, it is apparent that crude oil prices play a large role in the price at the pump.

Refinery Permitting

Recently, some representatives of the refining industry have stated that the permitting process in the U.S. is a major barrier and source of uncertainty to both building new refineries and expanding the capacity of existing ones. I would like to address this very important issue.

The term “permitting” encompasses many different regulations, activities, and governmental agencies. One of the programs that affect permitting decisions is the New Source Review or NSR regulations. Congress established this program with the goal of ensuring that new sources (and existing sources that make major modifications that increase emissions) install good air pollution controls. Pursuant to the Clean Air Act, EPA has set minimum requirements

for NSR programs. States then have the option of implementing EPA's program or running their own programs, which can be more stringent than the federal program. There are also state and local requirements, such as conditional use permits, that involve land use and other issues. For these state and local permits, over which EPA has no control, stakeholders such as local citizen groups may get involved and challenge the refiner's proposed action.

In response to the President's National Energy Policy (May 2001), EPA conducted a review of the NSR process and its effect on potential new refineries and on expansion of capacity at existing refineries. In a Report to the President (June 2001), we concluded that NSR had not significantly impeded investment in new refineries. We did find, however, that NSR discouraged projects for the refining and other industries that would have provided additional capacity or efficiency improvements and would not have increased air pollution. In response to these findings, EPA recently revised its NSR regulations to remove barriers to beneficial projects that would provide the additional capacity or achieve efficiency improvements with no increased air pollution, and to provide greater regulatory certainty for industry. We expect these reforms to streamline the NSR process for refineries and provide flexibility for sources to continue to meet our energy needs in an environmentally protective fashion for years to come. We are working with States to get these reforms approved and implemented as expeditiously as possible.

There are circumstances that may require special attention to the permit process so that critical facilities can be built or expanded, while still meeting environmental regulations. When presented with these circumstances, EPA and the states have demonstrated a willingness to ensure that appropriate permits move expeditiously. For example, although the refining industry was very concerned during the development of the Tier 2 low-sulfur gasoline rules that NSR permitting would make it difficult to make the facility changes necessary to meet the new rules,

we have not found that to be the case. In response to the industry's concerns, EPA committed to work closely with the state and regional organizations responsible for processing permit applications to help expedite the process to the extent possible. As part of this effort, we prepared guidance for conducting Best Available Control Technology (BACT) analyses, as required under the Prevention of Significant Deterioration permit program, and provided resources to expedite the processing of permit applications. We offer the same degree of cooperation with agencies and refiners in helping to streamline the permitting process to the greatest extent possible under the existing regulatory structure.

State and Local Clean Fuel Programs

Let me turn now to the issue of the so-called “boutique fuels.” The variation in fuels due to state and local fuel requirements is occasionally pointed to as contributing to higher gasoline prices, and some have inquired why EPA has approved the use of such fuels. The Clean Air Act authorizes states to regulate fuels as part of their state implementation plans—or SIPs— if EPA finds such regulations necessary to achieve a national air quality standard. This has resulted in a number of different formulations being required by states, which are often referred to as boutique fuels. Fifteen states have adopted their own clean fuel programs for part or all of the state. In those states that require gasoline that differs from federal standards, such gasoline generally has lower volatility than gasoline under the federal standards. In some cases, a state has adopted such a fuel program because it wanted the benefits of cleaner burning gasoline, but without the requirement that it contain an oxygenate.

Before adopting these boutique fuel controls, states often engage in a public advisory process to consult with stakeholders, including refiners and fuel suppliers that serve the affected

region, and other members of the public. Refiners typically have worked with states to design fuel controls that meet the region's air quality needs at the lowest possible cost. Therefore, the process of adopting fuel programs that contain different requirements than federal regulations is typically a joint effort between the refiners and suppliers, the public, and the state environmental agencies. Fuel supply and cost are important considerations when designing the program. Therefore, we advise states that are considering adopting their own clean fuel program to initiate this collaborative process.

The President's National Energy Policy issued in May, 2001 directed EPA to study opportunities, in consultation with DOE, USDA and other agencies, to maintain or improve the environmental benefits of state and local boutique fuel programs, while exploring ways to increase the flexibility of the fuels distribution system.

In October, 2001 EPA released an extensive EPA Staff White Paper on boutique fuels. The broad conclusions from this White Paper still hold up today: (1) the current gasoline refining and distribution system works well, except during times of disruption, (2) fewer fuel types are likely to improve fungibility, and (3) options exist to reduce the number of fuel types and improve fungibility while maintaining or improving air quality, although the fungibility benefits from taking these actions are likely to be modest and there may be significant cost or supply implications associated with these options.

EPA's authority to address many of these issues is limited. We are committed to working with Congress to explore ways to maintain or enhance the environmental benefits of clean fuel programs, while exploring ways to increase the flexibility of the fuels distribution infrastructure, improve fungibility, and provide added gasoline market liquidity. The Administration supported

energy bill provisions that would replace the statutory oxygen content requirement for RFG with a renewable fuel standard that includes a flexible, national credit-trading system.

Requests for Waivers from the Oxygen Requirement in RFG

I would now like to talk about the status of California's and New York's requests for a waiver of the oxygen requirement in RFG. The Clean Air Act requires that RFG be used in the highly polluted areas of the U.S. and that RFG contain a minimum of 2.0 percent by weight oxygen. In order to receive a waiver from the federal RFG oxygen requirement, a state must show that the requirement will interfere with the state's ability to attain a NAAQS.

Congress set a high hurdle for granting such waivers, and severely limits EPA's discretion. For example, the Clean Air Act does not allow the Agency to consider the risks of MTBE contamination of drinking water in California and New York. It also does not allow the Agency to consider the effect on gasoline prices or energy supplies that the oxygenate requirement and state bans on MTBE might have.

As was apparent in our denial of California's request in June of 2001, analyzing the emissions effects of granting a waiver is a very complicated endeavor. For example, the granting of a waiver would not result in the use of a uniform market of non-oxygenated RFG in the California RFG areas but, rather, some amount of oxygenated RFG would be used. Because California enacted a ban on the use of MTBE in gasoline, the oxygenate in California RFG is ethanol. A market which includes both non-oxygenated and ethanol oxygenated RFG creates the potential for mixing, called commingling, of the two types of fuel in the gas tanks of automobiles, which in turn results in increased emissions of volatile organic compounds. Other complicated issues arise such as how refiners would reformulate their gasoline without an

oxygen requirement and still meet the emissions performance requirements of RFG. In combination, these issues and others determine whether the granting of a waiver would, in fact, help or hinder the air quality situation in the state. We continue to sort out these complex issues as we review the data and analyses submitted by the State in support of its waiver request. Our actions with respect to the waiver requests from California and New York are no different in this regard.

In short, the Clean Air Act provides significant constraints for granting waivers of the oxygen requirement in RFG. We believe that the difficulties that the oxygen requirement poses for certain states can best be remedied by passage of comprehensive energy legislation that will simplify federal gasoline requirements by replacing the RFG oxygenate requirement with a national renewable fuels standard that includes a flexible credit trading system.

Mr. Chairman and members of the Subcommittee, the clean fuel programs I have talked about today are critical to our nation's efforts to reduce the harmful effects of air pollution from motor vehicles. They are also important to the production and distribution of gasoline at a fair price to consumers. We have learned a great deal about cleaner burning fuels since 1990 and the Agency will continue to look for ways to make improvements.

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

