DRIVING DOWN THE COST OF FILLING UP

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY POLICY, NATURAL RESOURCES AND REGULATORY AFFAIRS

OF THE

COMMITTEE ON GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTH CONGRESS

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DRIVING DOWN THE COST OF FILLING UP

WEDNESDAY, JULY 7, 2004

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY POLICY, NATURAL
RESOURCES AND REGULATORY AFFAIRS,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:30 a.m., in room 2154, Rayburn House Office Building, Hon. Doug Ose (chairman of the subcommittee) presiding.

Present: Representatives Ose, Schrock, Tiberi, Tierney, Kucinich, and Cooper.

Staff present: Barbara F. Kahlow, staff director; Melanie Tory, professional staff member; Lauren Jacobs, clerk; Megan Taormino, press secretary; Krista Boyd, minority counsel; Earley Green, minority chief clerk; and Jean Gosa, minority assistant clerk.

Mr. OSE. Good morning. Recognizing a quorum we are going to go ahead and convene this hearing of the Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs. This hearing is entitled, "Driving Down the Cost of Filling Up."

I want to welcome my friend, Mr. Cooper. The way we handle these hearings is, this is an investigative subcommittee. You'll see in the course of our proceedings that all the witnesses get sworn in prior to that. All the Members who wish to participate are provided the opportunity to make an opening statement. Those statements are limited to 5 minutes. The statements that our witnesses will make, while lengthy in written form, will be summarized within 5 minutes, which will be provided to each of them in order. In front of you, see a little rectangular box that has three squares. There are green, yellow and red lights in those squares. When the red light shows, the gavel comes down. So I'm encouraging you to keep your summaries to the 5 minutes.

One request I would make is that you turn your cell phones off or turn it to just vibrate mode. That would be helpful.

During the first 5 months of 2004, the gasoline prices rose nearly every week, peaking at a nationwide average of $2.05 per gallon. Gasoline prices in my district in California climbed even higher, hitting an astounding $2.30 per gallon on June 1st. Fortunately, gasoline prices have begun to decline in recent weeks, bringing consumers and businesses much needed relief.

With this respite, however, comes a critical juncture for policymakers, and that is, do we allow the issue of high gasoline prices to once again fade into the background, or do we actively seek to

implement solutions that address what seems to be a cyclical imbalance between gasoline supply and demand?

Over the last 4 years, I have presided over four hearings on gasoline markets. These hearings focused on a myriad of issues, including the structure of fuel markets nationwide, regional supply and demand factors and the effect of the transition from MTBE to ethanol in California. We found that there are some very real problems facing our fuel markets. As gasoline prices begin to retreat from their current highs and headlines, it is important that these issues do not fall by the wayside.

Since the cost of crude oil determines about 40 to 50 percent of the cost of a gallon of gasoline, we must first consider what can be done to reduce crude oil prices which reached a record setting $42 in June. And I think, this morning, we are popping up to $40 on-the-spot market. Some have advocated that we cease filling the Strategic Petroleum Reserve. Others have gone a step further and have called on the President to draw down on the SPR. These proposed quick fixes have serious repercussions and may do little to help drive down prices at the pump.

To ensure that Americans have a secure and affordable crude oil supply in the long term, we must either significantly reduce our current demand or we must boost our domestic oil production. Regardless of where future crude originates, to process it in the United States, we must expand and enhance the petroleum infrastructure which, at present, is stressed and at its operating limits. Addressing the operating constraints and bottlenecks within the entire infrastructure, including refineries, pipelines, storage tanks and port facilities, is important because each component of the system must function properly to ensure that consumers receive an adequate and affordable supply of gasoline.

We must look at ways to simplify the permitting process and to reduce the burden of uncertainty of regulations so as to encourage infrastructure upgrades and expansions. Failure to do so could result in additional market volatility and unnecessary price spikes.

Last, we must continue to consider the cumulative effect of Government regulation on gasoline supply and prices. Due to a dizzying array of Federal and State environmental regulations, there are approximately 60 different types of fuel spread across the United States. For the most part, these blends cannot be interchanged from one market area to another. Therefore, certain regions are susceptible to artificial shortages and price spikes.

In California, overlapping Federal and State regulations have created a de facto ethanol mandate. This mandate results in a 10 percent reduction in gasoline supply for 8 months of the year and does not necessarily improve either the quality of our air or the quality of our water.

At present, the EPA is considering the oxygenate waiver request from California. If approved, that waiver would exempt California refineries from the Clean Air Act's 2 percent oxygenate requirement, allowing them more flexibility to produce clean-burning gasoline. I continue to urge EPA to expeditiously grant this waiver, and it will be the subject of some questions within this hearing.

Boutique fuels and mandates add complexity to the production, distribution and storage of gasoline, further increasing volatility in

prices. Rather than continuing to dictate exactly what goes into a gallon of gasoline, we should set high environmental and performance standards and allow the industry to meet them by their concoction of different recipes of fuels.

I look forward to the testimony of our witnesses today. They include: Mr. Guy Caruso, who is the Administrator for the Energy Information Department for the Department of Energy. Welcome. We have Mr. Mark Maddox, who is the Acting Assistant Secretary for Fossil Energy at the Department of Energy. We have Mr. Jeffrey Holmstead, who is the Assistant Administrator for Air and Radiation at the Environmental Protection Agency. We have Mr. Jim Wells, who is the Director of Natural Resources environment at the Government Accountability Office.

We are also joined by again, after approximately a 2-year absence, by Mr. William Kovacic, who is the General Counsel for the Federal Trade Commission. That comprises our first panel.

Our second panel of witnesses is comprised of Robert Slaughter, who is the president of the Natural Petrochemical and Refiners Association and is also speaking on behalf of the American Petroleum Institute; Mr. Michael Ports, who is the president of Ports Petroleum Co., Inc. and is speaking on behalf of the Society of Independent Gasoline Marketers, and also the National Association of Convenience Stores. Our third witness on the second panel is Mr. Ben Lieberman, who is a senior policy analyst at the Competitive Enterprise Institute. And our fourth witness on the second panel is Mr. Blake Early, an environmental consultant for the American Lung Association.

In turn, we will welcome each of our witnesses.

At the present, I am pleased to recognize my good friend from Massachusetts for the purpose of an opening statement.

[The prepared statement of Hon. Doug Ose follows:]

Chairman Doug Ose
Opening Statement
"Driving Down the Cost of Filling Up"
July 7, 2004

During the first five months of 2004, gasoline prices rose nearly every week, peaking at a nationwide average of $2.05 per gallon. Gasoline prices in my district in California climbed even higher, hitting an astounding $2.30 on June 1st.

Thankfully, gasoline prices have begun to decline in recent weeks, bringing consumers and businesses much needed relief. With this respite, however, comes a critical juncture for policymakers: do we allow the issue of high gasoline prices to once again fade into the background, or do we actively seek to implement solutions that address the ever-increasing imbalance between gasoline supply and demand?

Over the last four years, as Chairman of the Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, I have presided over four hearings on gasoline markets. These hearings focused on a myriad of issues, including the structure of fuel markets nationwide, regional supply and demand factors, and the effect of the transition from MTBE to ethanol in California. We found that there are some very real problems facing U.S. fuel markets. As gasoline prices begin to retreat from their recent highs and headlines, it is important that these issues do not fall by the wayside.

Since the cost of crude oil determines about 40 to 50 percent of the cost of a gallon of gasoline, we must first consider what can be done to reduce crude oil prices, which reached a record-setting $42 in June. Some have advocated that we cease filling the Strategic Petroleum Reserve (SPR). Others have gone a step further and have called for President Bush to drawdown the SPR. These proposed quick fixes have serious repercussions and may do little to help drive down prices at the pump. To ensure that Americans have a secure and affordable crude oil supply in the long-term, we must either significantly reduce our current demand or we must boost our domestic oil production.

Regardless of where future crude originates, to process it in the U.S., we must expand and enhance the petroleum infrastructure, which is stressed and at its limits. Addressing the operating constraints and bottlenecks within the entire infrastructure, including refineries, pipeline, storage tanks, and port facilities, is important because each component of the system must function properly to ensure that consumers receive an adequate and affordable supply of gasoline. We must look at ways to simplify the permitting processes and to reduce the burden and uncertainty of regulations so as to encourage infrastructure upgrades and expansions. Failure to do so could result in additional market volatility and unnecessary price spikes.

Lastly, we must begin to consider the cumulative affect of governmental regulations on gasoline supply and prices. Due to the dizzying array of Federal and State environmental regulations, there are approximately 60 different types of fuel in the U.S. For the most part, these blends cannot be interchanged; thus, certain regions are susceptible to artificial shortages and price spikes.

In California, overlapping Federal and State regulations have created a *de facto* ethanol mandate. This mandate results in a 10 percent reduction in gasoline supply for 8 months of the year and does not necessarily improve the air or water quality. At present, the Environmental Protection Agency (EPA) is considering an oxygen waiver request from California. If approved, this waiver would exempt California refineries from the Clean Air Act's 2 percent oxygen requirement, allowing them more flexibility to produce clean-burning gasoline. I continue to urge EPA to expeditiously grant this waiver.

Boutique fuels and mandates add complexity to the production, distribution, and storage of gasoline, thereby increasing volatility and prices. Rather than continuing to dictate exactly what goes into a gallon of gasoline, we should set high environmental and performance standards and allow the industry to meet them.

I look forward to the testimony of the witnesses. They include: Guy F. Caruso, Administrator, Energy Information Administration, Department of Energy (DOE); Mark R. Maddox, Acting Assistant Secretary for Fossil Energy, DOE; Jeffrey R. Holmstead, Assistant Administrator for Air and Radiation, EPA; William E. Kovacic, General Counsel, Federal Trade Commission; Jim Wells, Director, Natural Resources and Environment, General Accounting Office; Robert Slaughter, President, National Petrochemical and Refiners Association and on behalf of the American Petroleum Institute; Michael Ports, President, Ports Petroleum Company, Inc, and on behalf of the Society of Independent Gasoline Marketers and the National Association of Convenience Stores; Ben Lieberman, Senior Policy Analyst, Competitive Enterprise Institute; and, A. Blakeman Early, Environmental Consultant, American Lung Association.

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June 30, 2004

MEMORANDUM FOR MEMBERS OF THE GOVERNMENT REFORM SUBCOMMITTEE ON ENERGY POLICY, NATURAL RESOURCES AND REGULATORY AFFAIRS

FROM: Doug Ose

SUBJECT: Briefing Memorandum for July 7, 2004 Hearing, "Driving Down the Cost of Filling Up"

On Wednesday, July 7, 2004, at 9:30 a.m., in Room 2154 of the Rayburn House Office Building, the Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs will hold a followup hearing on the factors affecting gasoline prices in the U.S. The hearing is entitled, "Driving Down the Cost of Filling Up."

For the first five months of 2004, the average retail price of a gallon of gasoline in the U.S. increased almost every week, climbing nearly 55 cents to a peak of $2.05 per gallon on May 26th. Consumers on the West Coast, and in California particularly, were subjected to even higher fuel costs, as gasoline prices reached $2.37 per gallon on June 1st. In recent weeks, gasoline prices have begun to decline; yet, average nationwide prices are expected to remain higher than historical averages for the rest of 2004.

Over the last four years, the Subcommittee has held four hearings on U.S. fuel markets, including, "Gasoline Supply – Another Energy Crisis?" in June 2001, "Fuel Markets: Unstable at Any Price" in April 2002, "California Gasoline Markets: From MTBE to Ethanol" in July 2003, and "Easing Pain at the Gasoline Pump: Finding Solutions for Western Woes" in May 2004. The most recent hearing explored a full range of supply-side and demand-side solutions to lower gasoline prices (see Attachment A). This hearing will explore additional actions the Federal government could take to reduce the volatility of U.S. fuel markets.

Global Crude Oil Markets

Since the cost of crude oil determines about 40 to 50 percent of the total price of gasoline, changes in the world oil market directly affect the price that consumers pay at the pump. On average, a one-dollar increase in the cost of a barrel of crude oil translates into a 2.5-cent increase in the price of a gallon of gasoline at retail gas stations.

Throughout 2004, world oil markets have remained tight, and crude oil prices have risen steadily, increasing more than $12 per barrel from December 2003 to June 2004, to reach a record high of $42 per barrel. These market conditions can be attributed to a number of factors, including a rising global demand for oil, political instability in Venezuela, Nigeria, and Iraq, and actions of the Organization of Petroleum Exporting Countries (OPEC). Although oil prices have begun to decrease in recent weeks, these factors will continue to affect supply and demand in the international crude markets.

Current Proposals Related to Oil Markets

Various proposals to temper crude oil prices, and thus gasoline prices, have gained attention as a result of the gasoline price spike. One of these solutions is to suspend deliveries of crude oil to the Strategic Petroleum Reserve (SPR),[1] which is currently filled to approximately 95 percent of its capacity. Although some have argued that SPR deliveries have significantly increased crude oil prices, it is unclear whether this is accurate. According to a February 2004 memorandum prepared by the Energy Department's Energy Information Administration (DOE/EIA), "the actual impact of SPR additions on oil prices could be close to zero" because of market dynamics and because of the small amount of oil being added to the SPR (see Attachment B). Does this conclusion still represent EIA's position?

Related to this solution is the proposal to release oil from the SPR to moderate gasoline prices.[2] Whether this policy would result in lower crude prices is highly debatable and raises numerous questions. For example, how would oil producing countries respond, where would the additional oil be refined, and would America's security be affected?

Also, the rise in crude oil prices has renewed the call for drilling on 2,000 of the 19,000,000 acres of the Arctic National Wildlife Refuge (ANWR) in northeastern Alaska. If projections regarding the amount of economically recoverable ANWR oil are correct, this policy could potentially provide a more secure and affordable domestic supply of gasoline in the long-term.

Petroleum Infrastructure Constraints

Another factor that affects gasoline prices is refinery capacity constraints. U.S. gasoline refineries are currently operating at or near full capacity, which limits their ability to respond to unexpected outages or imbalances between gasoline supply and demand. This situation increases the potential of price spikes when supply problems occur. Compounding this problem

---

[1] The SPR was authorized in the Energy Policy and Conservation Act of 1975 to prevent a repetition of the economic relocation caused by the Arab oil embargo. Following the events of September 11th, on November 13, 2001, President Bush directed the Secretary of Energy to fill the SPR to its capacity of approximately 700 million barrels with royalty-in-kind (RIK) acquisitions of crude from Federal off-shore leases. Under the current plan, deliveries of RIK oil are scheduled through October 2004, and are expected to average between 65,000 and 200,000 barrels per day.

[2] Under current law, a drawdown of the SPR may not be made unless the President finds that a drawdown and sale are required to respond, prevent, or reduce a "severe energy supply interruption" or by obligation of the U.S. under the international energy program (42 U.S.C. §6241).

is the fact that the U.S. petroleum infrastructure, which includes pipelines, storage tanks, and port facilities, is also strained and at its limits.

Looking to the future, demand for gasoline is expected to grow at a rate of approximately 2 percent per year, while refining capacity is expected to remain stagnant. In part, this is due to the regulatory difficulties and costs associated with building, expanding, and maintaining refinery facilities. If these capacity constraints are not addressed, or if demand is not significantly reduced, supply and demand within U.S. gasoline markets will continue to tighten, causing increased volatility and higher gasoline prices. There are a number of potential ways to affect both sides of this equation.

Boutique Fuels

The number of specialized fuel blends in the U.S. can affect gasoline prices. Due to overlapping Federal, State, and local air quality programs, and local refining and marketing decisions, today's gasoline market is comprised of as many as 60 types of gasoline that serve different regional markets. While using these specialized fuel formulations is seen as an efficient means of cleaning the air, the increase in these "boutique fuels" adds to the complexity of gasoline production, distribution, and storage.

In California and the Chicago/Milwaukee area, which have the most stringent air quality regulations in the country, and which are notorious "gasoline islands," the proliferation of boutique fuels has limited the number of refiners that have the technology and knowledge to create the compliant fuel blends for their specialized fuel markets. As a result, small disruptions in production, such as refinery outages or pipeline ruptures, can severely limit the supply of gasoline in these areas and cause sharp price spikes.

Responding to the boutique fuel problem is difficult given the ever-changing regulatory environment for gasoline. During this decade, refiners will need to develop fuels to comply with a myriad of new environmental regulatory programs. Any new policy must consider these changes so that additional boutique fuels are not inadvertently created and so that air quality is not degraded.

MTBE and Ethanol

In addition to balkanized markets, future markets may become even less stable as refiners deal with the effects of phasing out the fuel additive Methyl Tertiary-Butyl Ether (MTBE) and replacing it with ethanol. Under the Clean Air Act (CAA), refiners selling gasoline in areas with severe air pollution are required to add 2 percent oxygen by weight to the gasoline. Currently, there are only two viable oxygenates – MTBE and ethanol.

Due to water contamination concerns, on January 1, 2004, California, New York, and Connecticut banned the use of MTBE. These bans have reduced gasoline supply and fungibility, and have increased market volatility. Based on scientific data that neither MTBE nor ethanol is needed to meet current environmental standards, both California and New York have requested

the oxygen requirement be waived. The Environmental Protection Agency (EPA) is currently reviewing these waiver requests.

Market Competition

As with most commodities, low levels of market competition can lead to higher prices in the marketplace. Accordingly, when gasoline prices rise significantly, consumers and policymakers tend to call for industry investigations.

Most recently, in May 2004, the General Accounting Office (GAO) issued a report entitled, "Energy Markets: Effects of Mergers and Market Concentration in the U.S. Petroleum Industry," which asserted that mergers in the 1990s contributed to increases in market concentration in the downstream segment of the U.S. petroleum industry, increased vertical integration, and created barriers to entry.

In response to this report, on May 27, 2004, the Federal Trade Commission (FTC) released a statement criticizing GAO's accuracy. Specifically, FTC Chairman Timothy Muris wrote:

> As the Commission unanimously said in its August 2003 letter to GAO, this report has major methodological mistakes that make its quantitative analyses wholly unreliable; relies on critical factual assumptions that are both unstated and unjustified; and presents conclusions that lack any quantitative foundation. As a result, the report does not meet GAO's own high standards of 'accountability, integrity, and reliability" that one expects from its reports and publications.

The Subcommittee hopes to reconcile these differing views during the hearing.

Witnesses

Invited witnesses include: Guy F. Caruso, Administrator, EIA, DOE; Mark R. Maddox, Acting Assistant Secretary for Fossil Energy, DOE; Jeffrey R. Holmstead, Assistant Administrator for Air and Radiation, EPA; William E. Kovacic, General Counsel, FTC; Jim Wells, Director, Natural Resources and Environment, GAO; Robert Slaughter, President, National Petrochemical and Refiners Association; Michael Ports, President, Ports Petroleum Company, Inc; Ben Lieberman, Senior Policy Analyst, Competitive Enterprise Institute; and, A. Blakeman Early, Environmental Consultant, American Lung Association.

Attachments

Attachment A

Potential Solutions to Reduce Gasoline Prices

Supply-Side

- EPA grants CA & NY oxygen content waivers
- Reduce the number of boutique fuels
- Streamline permitting processes for refinery & pipeline construction & expansion
- Increase imports of finished gasoline & gasoline components
- Increase product storage capacity
- Increase domestic oil drilling (possibly in the Arctic National Wildlife Refuge)
- Drawdown or cease filling the Strategic Petroleum Reserve

Demand-Side

- Properly inflate tires
- Improve vehicle maintenance
- Remove unnecessary items from vehicle trunk
- Improve corporate average fuel economy (CAFE) standard
- Provide incentives for public transportation and carpooling
- Encourage the use of hybrids
- Develop alternative fuels (e.g., hydrogen & biodiesel)

Attachment B

Department of Energy
Washington, DC 20585

February 6, 2004

MEMORANDUM TO: THE SECRETARY

FROM: GUY CARUSO
ADMINISTRATOR
ENERGY INFORMATION ADMINISTRATION

SUBJECT: THE IMPACT OF STRATEGIC PETROLEUM RESERVE ADDITIONS ON CRUDE OIL PRICES

This is in response to your request that the Energy Information Administration (EIA) provide you with its assessment of the impact of additions to the U.S. Strategic Petroleum Reserve (SPR) from April 2002 to date on U.S. and global crude oil markets. The average SPR fill rate since April 2002 was 120 thousand barrels per day, with a monthly peak rate of 210 thousand barrels per day. Our overall assessment of how these additions may have affected oil markets can be summarized as follows:

- Given OPEC members' recent demonstrated ability to alter production to influence prices, the actual impact of SPR additions on oil prices could be close to zero. Had SPR additions not been made, OPEC members who operate at variable production levels may well have responded with offsetting output adjustments, maintaining a price and inventory profile identical to that which actually occurred. In this case, price impacts at or near zero are entirely plausible.

- EIA has also developed a standard "rule of thumb" for assessing the effect of **unexpected** disruptions to commercial oil supply -- that 1 million barrels per day removed from the world market has a price impact of $3 to $5 per barrel. Applying this rule, SPR additions, even at 200 thousand barrels per day, would have a price impact of about 60 cents to $1 per barrel. However, because SPR additions were announced and anticipated by the markets, the standard rule may overstate actual impacts.

EIA is aware that some market analysts have recently suggested that the SPR additions have had a much larger impact on oil prices. For example, a representative of the Air Transport Association, was recently quoted in press reports as saying that SPR additions "were adding enough demand to the world marketplace to drive up the price by more than $6 per barrel." In EIA's view, however, impact estimates this high (or even higher) use reasoning that does not withstand scrutiny.

- One claim made is that SPR additions, especially during a time of rising crude oil prices, push prices higher by exacerbating the tightness of the global oil supply/demand balance. However, additions to the SPR at the average SPR fill rate since April 2002, amount to only 0.15 percent of global demand – hardly enough to drive a 25% to 33% price

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increases in the global market. A variant of the same approach focuses on the share of SPR additions in the overall **change** in oil demand. However, as Paul Horsnell of Barclays Capital Research puts it, "The world consumed 29.2 billion barrels of oil in 2003, while the SPR grew by less than 0.04 billion [*barrels*]. At the margin, barrels of incremental global demand outnumbered the SPR fill by about fifteen to one." [Note: EIA's figures are slightly different, showing a ratio of 13.4 to 1]

- Another line of argument focuses on the level of commercial oil inventories, making the assumption that all of the oil that has been added to the SPR would, but for those additions, have flowed into commercial storage, resulting in much higher commercial stocks than the current estimate (as of January 16, 2004) of 265.2 million barrels, the lowest level since 1975. This reasoning, however, relies on key assumptions regarding the operation of world oil markets that are both implausible and mutually inconsistent:

    - First, it assumes no supply response on the part of oil exporters to a change in the level of SPR additions. Given the pre-announced and steady pattern of the SPR additions, it could reasonably be expected that major oil exporters, which have increasingly in recent years sought to reassert control over oil prices by managing output, would in fact produce less if these purchases were not taking place, rather than allowing an equivalent amount of crude oil to flow into commercial inventories.

    - Second, even in the unlikely event that supply remained at an unchanged level in a scenario with no additions to the SPR, the significant lowering of oil prices that the "high impact" analysts claim in such a scenario should have raised world oil demand above the levels that actually occurred. Even with no supply adjustments (unlikely) there would also have to have been no demand response to significantly lower prices (also unlikely) for all of the SPR additions made over this period to have shown up in current commercial inventories.

    - Thirdly, oil companies are unlikely to have to have added to commercial inventories if the SPR oil had been made available. Company inventory positions are at current levels because of cost cutting measures, better inventory management techniques and fiscal incentives. Crude oil has been available on the international market and the companies have chosen to operate with leaner inventories.

What factors does EIA believe have significantly impacted oil markets?

Although you did not specifically request it, we thought you might also be interested in our assessment of key factors currently driving oil markets. Since early 2002, a number of important fundamental factors have contributed to high crude oil prices, including rising demand; OPEC production cuts; supply disruptions in Venezuela, Nigeria, and Iraq; and low inventories.

- **The rise in crude oil prices to the $27-28-per-barrel range in late summer 2002 only represented a recovery to the levels seen prior to the terrorist attacks of September 11,**

2001, which depressed oil demand. By the second quarter of 2003, U.S. economic recovery began to accelerate. Coupled with surging Chinese growth and modest recovery elsewhere, strong economic activity has boosted U.S. and global oil demand significantly. Cold weather and fuel switching from natural gas to oil, both last winter and since mid-December 2003, have added to demand pressures.

- **OPEC cut its output quotas sharply at the beginning of 2002, in response to the sharp decline in prices after September 11, 2001.** This fourth cut, in a series of reductions that began in February 2001, sharply curtailed oil supplies just as oil demand began its recovery. In less than a year, OPEC reduced its ceiling level (for the 10 members excluding Iraq) by 5 million barrels per day, and actual production by up to 4 million barrels per day. This reduction in supply tightened the global oil balance significantly, resulting in declining inventories relative to normal throughout the second half of 2002. The roots of current oil price volatility trace to these actions, since OECD stocks had already reached the near-record lows seen in 2000 by November 2002, just ahead of Venezuela's oil disruption.

- **In December 2002, a strike by petroleum workers in Venezuela drastically reduced global crude oil supplies.** The impact was felt most in the United States, the largest consumer of Venezuelan crude oil. Nigerian production was also curtailed in early 2003 due to unrest.

- **Crude supply disruptions in Venezuela, Nigeria and Iraq in late 2002 and early 2003 were not fully offset by increased supply from other sources.** While there can be no doubt that Saudi Arabia and the OPEC 10 dramatically boosted production following the Venezuelan outage, as well as prior to and following the Iraq war, the initial increases were slow in coming, with December 2002 and January 2003 aggregate production levels down sharply from already-tight November 2002 supply levels. When the surge in OPEC supply did occur, the bulk of the increase (excluding Venezuela) appears to have gone to China and other Asian refiners, at least through the first half of 2003.

- **OPEC cut quotas twice during 2003, reducing global supplies.** The first was effective June 1, and they later agreed to cut quotas again effective November 1. While OPEC members continued to produce more than their agreed-upon quotas, production remained low enough to sustain WTI prices above $30 per barrel for most of 2003.

- **By the end of 2003, there was some recovery in product inventories, but U.S. crude oil inventories reached their lowest levels since the mid-1970s.** While OPEC appears to have sustained high production levels over the second half of 2003, OECD stocks in November 2003 dipped back below November 2000 levels. Some recovery in either crude oil or product stocks relative to normal has occurred over the last 6 months both in the U.S. and worldwide, but supply has generally been inadequate to meet improving oil demand and at the same time rebuild both crude oil and product stocks. As such, the last year has been characterized by a "cycling" of this shortfall from region to region and product to product.

Obviously, it is impossible to address in full detail all of the important factors affecting oil markets in a brief memorandum. Please feel free to contact us if you have any additional questions.

Mr. TIERNEY. Thank you, Mr. Chairman.

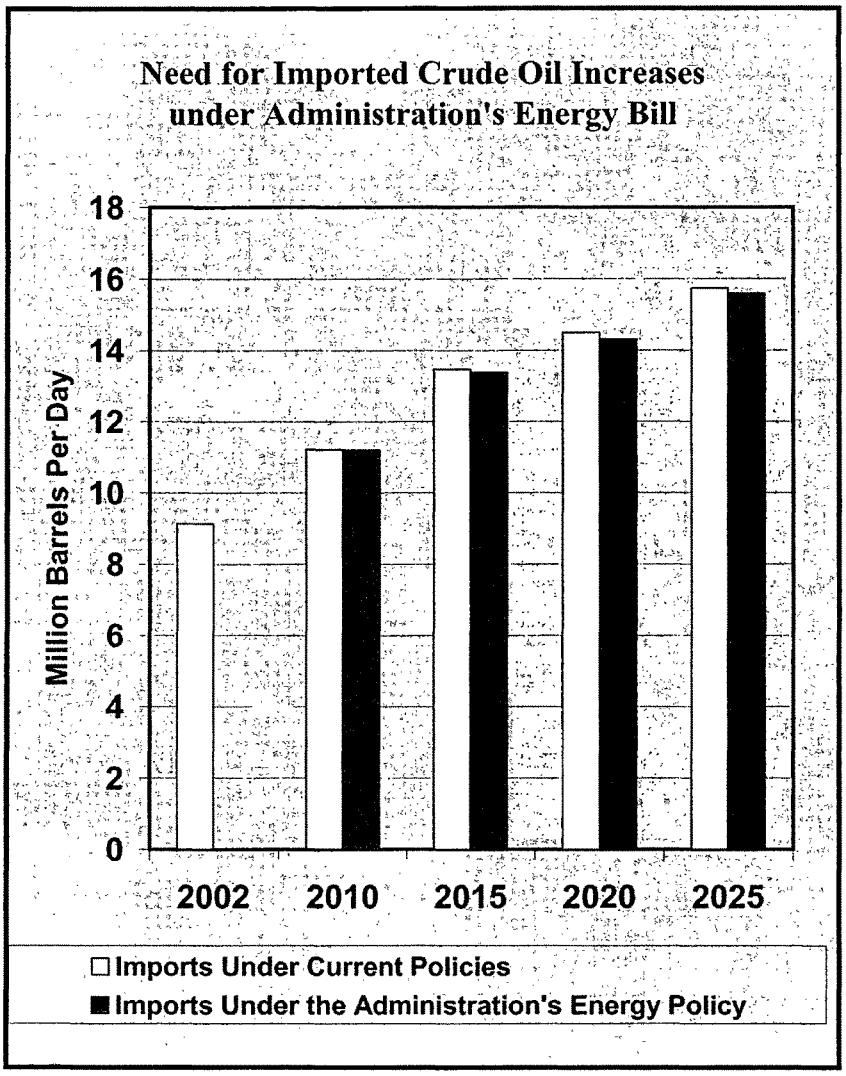
Thanks for holding this hearing on gasoline prices and continuing on this series of hearings. I think there are a couple of things that we can agree on. The first is that gasoline prices are high, and according to the Energy Information Administration, the average price for gas nationwide is about $1.89. It's decreased gradually over the last 5 weeks, but it's still about 40 cents more than at this time last year. And the EIA is not projecting the downward trend to last throughout the summer.

I think we can also agree, the demand for gasoline is increasing, and gasoline supplies in the United States are tight. However, rather than blaming environmental laws and promoting corporate give-a-ways, I believe we should be taking action to address the underlying causes behind the current supply and demand situation. I believe that we need to enact an effective national energy policy, conduct an investigation into the business activities of oil companies and how those activities may be contributing to higher gas prices and take actions that could bring immediate relief, like not diverting supplies into the Strategic Petroleum Reserve.

We also should take any necessary actions to assist particular regions, such as granting California's request for an oxygenate waiver. We need an effective national energy policy that promotes responsible energy consumption and reduces our dependence on foreign oil. We should be investing in renewable energy technologies and strengthening our fuel economy standards. If we increase fuel economy standards to 36 miles per gallons by 2015, we are told we could save 2 million barrels of oil a day in just 5 years, and controlling demand would help control prices.

Under the administration's energy plan, imports of foreign oil would actually increase 70 percent from 2002 to 2025. The committee staff prepared charts as part of a report for Ranking Member Waxman based on data from the EIA.

[The information referred to follows:]


Need for Imported Crude Oil Increases
under Administration's Energy Bill
Million Barrels Per Day
18
16
14
12
10
8
6
4
2
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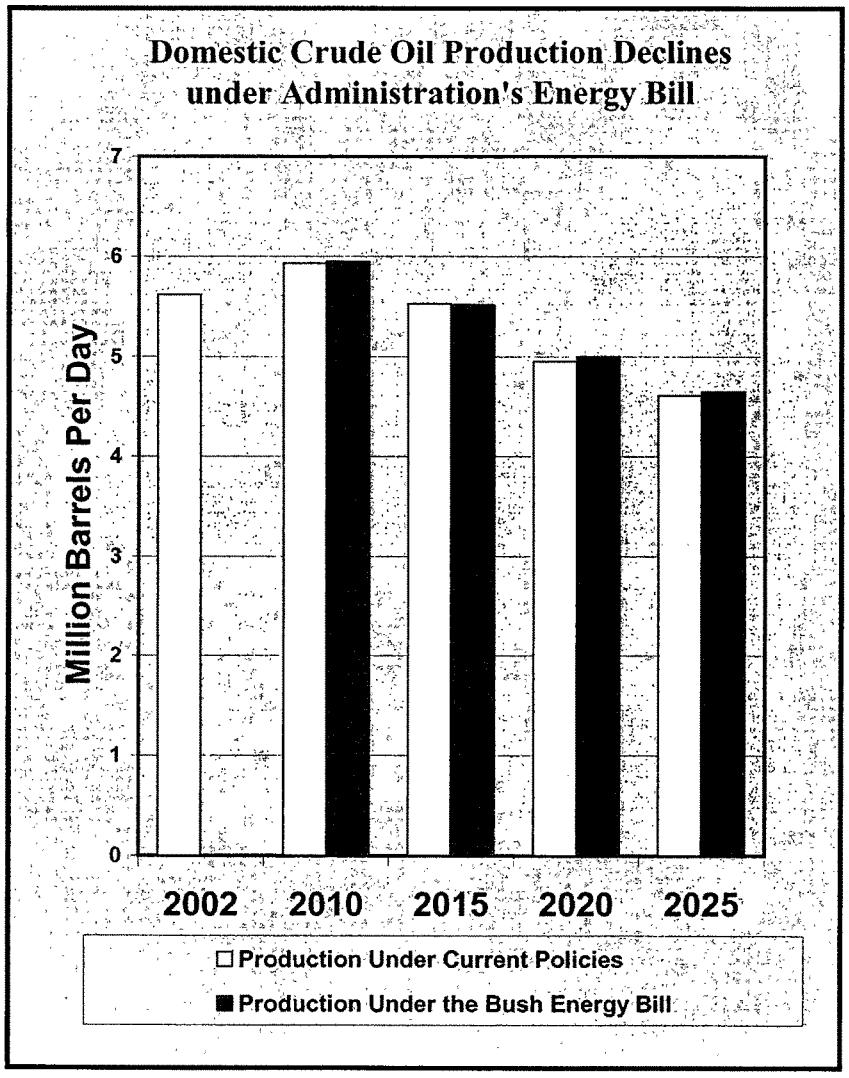
2002
2010
2015
2020
2025
Imports Under Current Policies
Imports Under the Administration's Energy Policy


Domestic Crude Oil Production Declines
under Administration's Energy Bill
Million Barrels Per Day
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3
4
5
6
7
2002
2010
2015
2020
2025
Production Under Current Policies
Production Under the Bush Energy Bill

Mr. TIERNEY. Those charts are over to my left and the audience's right. Those charts show that domestic oil production will decline, even under the administration's energy bill, and that, even if we adopt the administration's energy bill, the need for imported oil continues to grow dramatically, and we will need to import a record amount of oil in coming decades.

The administration's bill does nothing to lower gasoline prices. According to an analysis by the EIA, Energy Information Administration, the administration's energy bill will have a negligible impact on gas prices, increasing the average gas prices by 3 cents per gallon. The administration's energy plan would not lower gas prices, would not reduce our dependence on foreign oil, but would give $20 billion of subsidies to the oil industry.

Instead of pushing give-a-ways to the oil industry, the administration's efforts should be focused on investigating whether oil companies are engaging in anti-competitive practices and manipulating gas prices. Oil companies engaged in a wave of mergers in the 1990's, and the trend continues. There have been literally thousands of oil company mergers that have left 10 companies controlling close to 79 percent of the market. The General Accounting Office released a report in May finding that there were over 2,600 merger transactions between 1991 and 2000, leading to increased concentration in the oil industry's downstream market. I note that study and that report ended in 2000 and does not even take into account mergers since that date. Six of the eight specific mergers evaluated by GAO resulted in higher wholesale gasoline prices.

Now, the Federal Trade Commission, who we'll hear from today, has severely criticized the GAO's report. Rather than criticizing GAO, the FTC should be focusing its energy on performing its own analysis. It is the Federal Trade Commission's responsibility to protect consumers from anti-competitive behavior. And in light of the mounting evidence that market concentration is creating an environment for anti-competitive behavior, the Federal Trade Commission and the Department of Justice should investigate the market structure and the business practices of the oil industry.

During a recent conversation with EPA—former EPA Administrator Carol Browner, it was pointed out that gasoline prices dropped when the Clinton administration just announced the request for the FTC to investigate the possibility of anti-competitive practices by oil companies. The administration should also send a message to the market that it's serious about lowering gas prices by not filling the Strategic Petroleum Reserve until prices are lower and more stable.

Americans deserve action by the administration and by this Congress to assure immediate relief at the pump and long-term energy security.

Thank you, Mr. Chairman.

[The prepared statement of Hon. John F. Tierney follows:]

STATEMENT
REPRESENTATIVE JOHN F. TIERNEY
GOVERNMENT REFORM SUBCOMMITTEE ON ENERGY POLICY, NATURAL RESOURCES AND REGULATORY AFFAIRS
HEARING ON GASOLINE PRICES
JULY 7, 2004

Thank you, Mr. Chairman for holding this hearing on gasoline prices. I think there are a couple of things that we can agree on. First, gasoline prices are high. According to the Energy Information Administration, the average price for gas nationwide is $1.92. While prices have decreased gradually over the last five weeks, gas still costs an average of 43 cents more than at this time last year and EIA is not projecting the downward trend to last through the summer. I think we can also all agree that demand for gasoline is increasing and gasoline supplies in the U.S. are tight.

However, rather than blaming environmental laws and promoting corporate giveaways, I believe we should be taking action to address the underlying causes behind the current supply and demand situation. I believe that we need to enact an effective national energy policy, conduct an investigation into the business activities of oil companies and how those activities may be contributing to higher gas prices, and take actions that could bring immediate relief like not diverting supplies into the Strategic Petroleum Reserve. We also should take any necessary actions to assist particular regions- such as granting California's request for an oxygenate waiver.

We need an effective national energy policy that promotes responsible energy consumption and reduces our dependence on foreign oil. We should be investing in renewable energy technologies and strengthening our fuel economy standards. If we increased fuel economy standards to 36 miles per gallon by 2015, we could save 2 million barrels of oil a day in just five years—and controlling demand would help control prices.

Under the Administration's energy plan, imports of foreign oil would increase 70% from 2002 to 2025. Committee staff prepared charts as part of a report for Ranking Member Waxman based on data from EIA. These charts show that domestic oil production will decline even under the Administration's energy bill and that even if we adopt the Administration's energy bill, the need for imported oil continues to grow dramatically and we will need to import a record amount of oil in coming decades.

The Administration's bill does nothing to lower gasoline prices. According to an analysis by the Energy Information Administration, the Administration's energy bill will have a "negligible" impact on gas prices, increasing average gas prices by 3 cents per gallon. The Administration's energy plan would not lower gas prices, would not reduce our dependence on foreign oil, but would give $20 billion in subsidies to the oil industry.

Instead of pushing giveaways to the oil industry, the Administration's efforts should be focused on investigating whether oil companies are engaging in anticompetitive practices and manipulating gas prices.

Oil companies engaged in a wave of mergers in the 1990's and the trend continues. There have been literally thousands of oil company mergers that have left 10 companies controlling close to 79% of the market.

The General Accounting Office released a report in May finding that there were over 2,600 merger transactions between 1991 and 2000 leading to increased concentration in the oil industry's downstream market. Six of eight specific mergers evaluated by GAO resulted in higher wholesale gasoline prices.

The Federal Trade Commission, who we will hear from today, has severely criticized GAO's report. Rather than criticizing GAO, FTC should be focusing its energies on performing its own analysis. It is FTC's responsibility to protect consumers from anticompetitive behavior. And in light of the mounting evidence that market concentration is creating an environment for anticompetitive behavior, FTC and the Department of Justice should investigate the market structure and business practices of the oil industry.

During a recent cable television show that I hosted on gasoline prices former EPA Administrator Carol Browner pointed out that gasoline prices dropped when the Clinton Administration just announced a request for FTC to investigate the possibility of anticompetitive practices by oil companies. I ask unanimous consent that a copy of the show be included in the record.

The Administration should also send a message to the market that it is serious about lowering gas prices by not filling the strategic petroleum reserve until prices are lower and more stable.

Americans deserve action by the Administration and Congress to ensure immediate relief at the pump and long-term energy security. Thank you, Mr. Chairman.

Mr. OSE. I thank the gentleman.

The gentleman from Ohio.

Mr. TIBERI. Thank you, Mr. Chairman, for scheduling this hearing this morning.

Over the past several months, you have taken this subcommittee across the country. You've looked at why gas prices are so high. You've probed into what can be done to bring prices down. Our hearing today is a continuation of that effort, and on behalf of everyone who is filling up at the pump as we speak, I want to thank you again for your leadership and working so diligently on this issue.

I won't recount the many reasons for today's prices, high prices at the pump. They've already been discussed this morning. They have been discussed in the past. What I hope we can learn from our witnesses today is how we can bring those prices down and how we can do so in a manner that will prevent spiraling prices at the gas pump in the future.

Specifically, there are two areas I hope we can examine in detail, Mr. Chairman. First, can the Strategic Petroleum Reserve play a role in reducing prices at the pump? There are those who say they can, that the SPR should be tapped right now to help consumers. But, there are others who say it shouldn't be tapped, that the SPR is not there for that purpose and, even if it were, the relief consumers would see would be so light that it wouldn't be meaningful.

I certainly don't know the answer to that question. I have heard and seen mixed answers. Hopefully, we will have some enlightening answers today from our panelists.

The second area I want to hear more about is the confusing number of gasoline blends that are required across the country and across certain regions of our country. The situation is so confusing, Mr. Chairman, that I have had trouble finding out how many blends there are required in America. I have heard estimates ranging from several dozen to over 100. Finding out exactly how many is important, but more important than that and more crucial is knowing just how many we really need in our country.

As has been noted many times, the number of blends we have now, no matter what the number is, has already made a difficult refining situation even worse. It stands to reason that fewer blends would make refining operations simpler and more efficient and thus lead to greater supplies that would bring prices down.

Last month, this House spent several days on a variety of energy-related legislation, and while we passed several important measures, I was particularly pleased that one of them addressed the need to add badly needed domestic refining capacity. We can talk all we want about factors such as price of crude oil that we cannot control ourselves in this country, but the fact is that there is much that we could do right here, right now, to help our consumers and improve our energy security.

Mr. Chairman, I again want to thank you for your leadership on energy-related issues. Your leadership will be missed as we continue our efforts in the years to come. Thank you for this hearing.

Mr. OSE. Thank the gentleman.

I am pleased to recognize the Representative from the country music capital of the country, Mr. Cooper.

Mr. COOPER. Thank you, Mr. Chairman. I appreciate your calling this hearing.

Certainly, gasoline prices are among the most visible and most painful of the consumer price increases that we face. I think the elephant in the room that has not been mentioned enough in regard to the many reasons that gas prices can go up or down, the elephant in the room is the terrific uncertainty we face in the Middle East, the region of the world that's blessed with the greatest reserves of oil.

If you look at the country with the No. 1 amount of reserves, it would be Saudi Arabia, which is one of the most dangerous countries in the world today for an American to live and work as a result of increased terrorism in the last months and years. If you look at the country with the No. 2 amount of oil reserves, it would be Iraq, where a war is currently being fought. So, there are a myriad of factors that can increase or decrease gasoline prices, because if you look at geopolitical uncertainty, certainly there is a period of extreme concern in the region with the greatest number of oil reserves.

Mr. Chairman, I have come to this meeting greatly prejudiced because one of my friends and colleagues from the Vanderbilt Business School faculty happens to be chief economist of the FTC, and while he and I don't agree on many issues, we do agree on the need for serious academic work done on issues of great national concern. So, I come to this hearing with some worries that the GAO report does not live up to those high standards. But, I'll look forward to hearing the testimony of the witness today and judging for myself, for example, whether those results can in fact be duplicated.

But, if you take a great long list of reasons that gas prices can go up or down, oil company mergers, to me, don't seem to be at the top of that list. Perhaps, they are, but when I worked as a businessman a little bit in the retail gasoline industry, I noticed that convenience store sales of snacks have a lot more to do with retail success in the marketplace than do gasoline prices. Because the gasoline market seems to be a little bit more efficient than the Snickers market or the other junk food items that we all love to buy when we go to the store.

But, I appreciate your holding this hearing, Mr. Chairman, and I will look forward to seeing if we can get some information that's useful for the American consumer.

Thank you.

Mr. OSE. I thank the gentleman.

I am pleased to recognize the vice chairman of the subcommittee, from Virginia, Mr. Schrock.

Mr. SCHROCK. Thank you, Mr. Chairman. I have no opening statement, which should make everybody happy.

Mr. OSE. We will move on.

Mr. SCHROCK. Oh, no, no, no. No, that doesn't mean I'm finished. The hearing we had last time was really amazing, and I think I learned a lot, and I think a lot of other folks did, too. And if gas prices are any indication, I can assure you that, in Virginia Beach where I live, I got gas last week once for $1.69 and once for $1.65. So it's heading in the right direction. That doesn't mean I want ev-

erybody moving down there, but I think it's heading in the right direction.

But, I am really anxious to hear what all the panels have to say today and see if we can get our hands around this thing. Thank you very much Mr. Chairman.

Mr. OSE. I thank the gentleman.

I am pleased to recognize the gentleman from Ohio, Mr. Kucinich.

Mr. KUCINICH. Thank you very much, Mr. Chairman, for holding this important hearing.

Our constituents are being gouged by high gasoline prices, and the administration has provided no relief. Excessive gasoline prices are stealing away the little discretionary income available to many Americans in this troubled economy. We must demand relief now.

While the oil industry blames environmental regulations and OPEC, there is substantial evidence that anti-competitive practices by domestic corporations, made possible by recent mergers, are partly to blame for high gasoline prices. I believe only an increase in Government oversight can restore the transparency and accountability consumers need.

In the last 6 years, mergers between BP and Amoco, 1998; Exxon and Mobil, 1999; BP Amoco and ARCO 2000; Chevron and Texaco, 2001; Valero and Ultramar Diamond Shamrock, 2001; Conoco and Philips, 2002, all of these mergers in the last 6 years have created huge new oil companies that have control over the most significant factor impacting gasoline prices, control over domestic refineries.

Today, the largest five refiners operating in America, Conoco Philips, Royal Dutch Shell, Exxon Mobil, BP and Valero, control over 52 percent of domestic refining capacity. The top 10, which includes Chevron, Texaco, Citgo, Marathon, Sunoco and Tesoro, control 78.5 percent. This level of concentration is far greater than a decade ago when the largest five refiners controlled 34.5 percent of the market and the largest 10 owned 55.6 percent.

Armed with significant market share, these oil companies can more easily pursue anti-competitive activities that result in price gouging. The U.S. Federal Trade Commission, concluded in March 2001 that oil companies pursued profit-maximizing strategies to intentionally withhold gasoline supplies as a tactic to drive up prices. In addition, deregulation of energy trading markets, like the ones exploited by Enron, has removed transparency from oil and natural gas futures markets, allowing oil companies and Wall Street investment banks to potentially manipulate prices on these markets.

While some claim the stalled energy bill will provide new supplies of the market and, therefore, force down prices, the Energy Information Administration concludes that the billion dollar subsidies the energy bill would provide to energy corporations will neither significantly increase production nor lower prices for consumers.

I would like to enter into the record a letter signed by 75 Members of Congress, including Mr. Tierney and myself.

This letter was sent to the President asking him to take six actions to help reduce high gas prices. The letter was endorsed by the leading consumer organizations, Consumer Federation of America, Consumers Union and public citizen.

The six steps outlined for the President are: First, require oil companies to expand gasoline storage capacities, require them to hold significant amounts in that storage and reserve the right to order those companies to release this stored gas to address supply and-demand fluctuations.

Second, block mergers to make it easier for oil companies to manipulate gasoline supplies and take steps, such as forcing companies to sell assets, to remedy the current highly concentrated market.

Third, re-regulate energy trading exchanges that were exploited by Enron and continue to be abused by other energy traders.

Fourth, discontinue filling the Strategic Petroleum Reserve while prices are high and conduct the study of building crude and product reserves that can be used as economic stockpiles to dampen price increases.

Fifth, reduce oil consumption by implementing strong fuel economy standards. Substantially improving CAFE standards over a 10-year period would reduce the oil used by one-third in 2020 and save consumers $16 billion at the pump.

Sixth, request the Federal Trade Commission to conduct a study of reasons why the market forced the closure of over 50 predominantly small and independent refiners in the past 10 years and assess how to bring fair competition back to the refinery market and thus expand capacity.

Mr. Chairman, by employing all six of these strategies, substantial reductions in the price of gasoline are attainable. We are still waiting for the administration's response. I would like to enter this letter in the record without objection.

[The information referred to follows:]

Congress of the United States
Washington, DC 20515

May 25, 2004

The Honorable George W. Bush
President of the United States
White House
1600 Pennsylvania Ave
Washington, D.C. 20500

Dear President Bush:

Gasoline prices continue to climb to record highs, with the national average now at $2.06 a gallon, and prices topping $2.32 in some areas. While the oil industry blames environmental regulations and OPEC, there is substantial evidence that anti-competitive practices by domestic corporations—made possible by recent mergers—are partly to blame for high gasoline prices. We believe only an increase in government oversight can restore the transparency and accountability consumers need.

In the last six years, mergers between BP and Amoco (1998), Exxon and Mobil (1999), BP Amoco and Arco (2000), Chevron and Texaco (2001), Valero and Ultramar/Diamond Shamrock (2001), and Conoco and Phillips (2002) created huge new oil companies that have control over the most significant factor impacting gasoline prices: domestic refineries. Today, the largest five refiners operating in America—ConocoPhillips, Royal Dutch Shell, ExxonMobil, BP and Valero—control over 52% of domestic refining capacity. The top 10 (which includes ChevronTexaco, Citgo, Marathon, Sunoco and Tesoro) control 78.5%. This level of concentration is far greater than just a decade ago, when the largest five refiners controlled 34.5% of the market, and the largest 10 owned 55.6%.

Armed with significant market share, these oil companies can more easily pursue anti-competitive activities that result in price-gouging. The U.S. Federal Trade Commission (FTC) concluded in March 2001 that oil companies pursued "profit-maximizing strategies" to intentionally withhold gasoline supplies as a tactic to drive up prices.[1] In addition, deregulation of energy trading markets (like the ones exploited by Enron) has removed transparency from oil and natural gas futures markets, allowing oil companies and Wall Street investment banks to potentially manipulate prices on these markets.

While some claim the stalled energy bill will provide new supplies to the market and therefore force down prices, the Energy Information Administration concludes that the billion dollar subsidies the energy bill would provide to energy corporations will neither significantly increase production nor lower prices for consumers.[2]

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[1] Final Report of the Federal Trade Commission. Midwest Gasoline Price Investigation. March 29, 2001.

[2] Summary Impacts of Modeled Provisions of the 2003 Conference Energy Bill. February 2004. Energy Information Administration. Office of Integrated Analysis and Forecasting. U.S. Department of Energy.

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Effectively addressing high gasoline prices will take six steps—none of which are included in the energy legislation. We ask you to support these steps and take the necessary actions to implement them.

First, require oil companies to expand gasoline storage capacities, require them to hold significant amounts in that storage, and reserve the right to order these companies to release this stored gas to address supply and demand fluctuations.

Second, block mergers that make it easier for oil companies to manipulate gasoline supplies—and take steps, such as forcing companies to sell assets, to remedy the current highly concentrated market.

Third, re-regulate energy trading exchanges that were exploited by Enron and continue to be abused by other energy traders.

Fourth, discontinue filling the Strategic Petroleum Reserve while prices are high and conduct a study of building crude and product reserves that can be used as economic stockpiles to dampen price increases.

Fifth, reduce oil consumption by implementing strong fuel economy standards. Substantially improving CAFE standards over a ten-year period would reduce the oil used by one-third in 2020 and save consumers $16 billion at the gas pump.[3]

Sixth, request the Federal Trade Commission conduct a study of the reasons why the market forced the closure of over 50 predominantly small and independent refiners in the past ten years and assess how to bring fair competition back to the refinery market and thus expand capacity.

By employing all six of these strategies, substantial reductions in the price of gasoline are attainable. We urge you to support these strategies.

Sincerely,

Dennis J. Kucinich Edward J. Markey

Diane E. Watson Peter DeFazio

Eddie Bernice Johnson Danny K. Davis

[3] National Academy of Sciences, "Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards," (2002).

Joe Baca

Jerry Kenfer

Donald Payne

Barbara Lee

Grace F. Napolitano

Brad Sherman

Raúl M. Grijalva

Stephen Pitts Jones

Tom Lantos

Corrine Brown

Lois Capps

Carolyn McCarthy

Jerrold Nadler
Louise M. Slaughter
Carolyn C. Kilpatrick
Frank Pallone, Jr.
Nita Lowey
Anna G. Eshoo
John Sarbanes
Rush Holt
Peter DeFazio
Henry A. Waxman

Mr. OSE. The gentleman's request is granted.

All right. We have all completed our statements up here. We are going to now go to the witnesses.

Before we go to the witnesses, we are going to swear you all in. So if you'd all please rise.

[Witnesses sworn.]

Mr. OSE. Let the record show that all of the witnesses answered in the affirmative.

Our first witness today is Mr. Guy Caruso. He is the administrator for the Energy Information Administration at the Department of Energy.

Mr. Caruso, we have received your written statement, and we have read it. And, we have many questions. You're recognized for 5 minutes for the purpose of summarizing.

STATEMENTS OF GUY F. CARUSO, ADMINISTRATOR, EIA, DOE; MARK R. MADDOX, ACTING ASSISTANT SECRETARY FOR FOSSIL ENERGY, DOE; JEFFREY R. HOLMSTEAD, ASSISTANT ADMINISTRATOR FOR AIR AND RADIATION, EPA; WILLIAM E. KOVACIC, GENERAL COUNSEL, FTC; AND JIM WELLS, DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, GAO, ACCOMPANIED BY SCOTT FARROW, CHIEF ECONOMIST, GAO

Mr. CARUSO. Thank you, Mr. Chairman, and I appreciate this opportunity to present to you and the Members of the subcommittee the Energy Information Administration's Short-Term Energy Outlook for crude oil and gasoline, which we released simultaneously with the beginning of this hearing.

My main message is that, although we have seen some price relief in recent weeks, as has been mentioned, both crude oil and gasoline markets are very tightly balanced and subject to volatility. Crude oil prices reached the high point of $42 in June, fell to $35 and now have risen again to $39 just this morning with the continued uncertainty in Iraq and in some cases other places, such as Nigeria and Venezuela.

Gasoline, having peaked at a national average for 1 week at $2.06 per gallon, yesterday was down to $1.89. The main reason for these high prices compared with history are global world market and supply and demand fundamentals which are tight. The world's economic growth in 2003 and 2004 has added 2.2 million barrels a day of demand to the world market, led by China and the United States. On the supply side, we are expecting non-OPEC production to increase about 1 million barrels a day this year, which means OPEC will need to increase production by 1.2 million barrels a day just to keep up with that very strong growth. With inventories already low going into this year, that growth in both non-OPEC and OPEC would just keep them at that low level, not building, which we believe is necessary.

Another important factor in this tight and volatile market is the very small amount of spare productive capacity. Currently, there's only about a million barrels a day of unused productive capacity in the world, almost all of which is in Saudi Arabia, and that's a present world market of 82 million barrels a day, so we are operating the global crude market at between 98 and 99 percent of capacity. Clearly, that is little room for any surprises.

Inventories are and will continue to be a key indicator to prices. U.S. crude inventories have been low most of this year and only recently have moved into the normal range, as published by the EIA. Gasoline, however, remains quite low and at the lower end of the normal range and, therefore, volatility and potential for price spikes remains in the gasoline market because of the strong demand and the tight situation in domestic refining, which accounts for about 90 percent of our domestic gasoline supplies, so that 10 percent from foreign refiners is critical, especially during the peak driving season.

And this year, imports from Europe, the Caribbean and elsewhere are a bit lower than we anticipated, partly because of tightness around the world on refining capacity and partly because of the more stringent U.S. specifications that have gone into effect with regard to sulfur. And, therefore, we are watching the imports very closely on a week-to-week basis to see where these supplies will be headed, as well as the impact on inventories. So, to sum up, EIA remains prudently cautious of where this market is going to end up. Saudi Arabia and other producers have promised to increase their production, and so far, that seems to be holding up. And while gasoline prices have declined in recent weeks, consumers should not expect retail prices to fall back to the prices we have seen even last year. Our current short-term forecast projects that west Texas Intermediate Crude prices will likely fluctuate around $37 per barrel, reflecting this tightness, and that gasoline will average about $1.83 per gallon for the second half of the year.

So, in conclusion, the EIA anticipates a continued tight market subject to volatility. Thank you very much, Mr. Chairman, for the opportunity to be here today.

[The prepared statement of Mr. Caruso follows:]

STATEMENT OF

GUY F. CARUSO

ADMINISTRATOR,
ENERGY INFORMATION ADMINISTRATION
DEPARTMENT OF ENERGY

before the

GOVERNMENT REFORM SUBCOMMITTEE ON ENERGY POLICY, NATURAL RESOURCES AND REGULATORY AFFAIRS

UNITED STATES HOUSE OF REPRESENTATIVES

July 7, 2004

Mr. Chairman and Members of the Committee:

I appreciate the opportunity to appear before you today to discuss what drives crude oil supply, gasoline demand and the effects on prices. The Energy Information Administration (EIA) is the independent statistical and analytical agency within the Department of Energy. We are charged with providing objective, timely, and relevant data, analysis, and projections for the Department of Energy, other government agencies, the U.S. Congress, and the public. We do not take positions on policy issues, but we do produce data and analysis reports that are meant to help policymakers determine energy policy. Because the Department of Energy Organization Act gives EIA an element of independence with respect to the analyses that we publish, our views are strictly those of EIA. They should not be construed as representing those of the Department of Energy or the Administration.

During the first 5 months of 2004, prices for gasoline and crude oil rose steadily. At the beginning of June, the price of West Texas Intermediate (WTI) crude oil was over $42 per barrel, and the national average retail price of regular gasoline was $2.05 per gallon, more than 50-cents-per-gallon higher than prices at the beginning of this year or in May 2003 (Figure 1). While gasoline prices in real, inflation-adjusted terms remain well below their historical peak level (gasoline prices in 1981 were closer to $3.00 per gallon in today's dollars), there is little doubt that the recent rapid runup in prices constitutes a drain on disposable income and a challenge to planning for many businesses and consumers.

The very latest data show some price relief. Retail gasoline prices fell by more than 14 cents per gallon from May 24 through June 28. More significantly, wholesale

gasoline prices fell by 32 cents per gallon from their peak on May 19 through June 28, which should result in further reductions in retail prices in coming weeks. Crude oil prices have fallen about 13 percent ($5.40) from mid May through June 28.

Looking ahead, any projection of oil markets is highly uncertain given the present situation of tight crude oil and product inventories at a time when recent attacks in Saudi Arabia and Iraq have heightened concerns regarding the potential for unexpected disruptions. As has been the case for some time, price uncertainties are higher on the upside than the downside.

The July 2004 Short-term Energy Outlook (STEO), released today, shows the average retail gasoline price in June at $1.97 per gallon and falling further in July.

The latest STEO reflects our view of an improved balance between supply and demand in gasoline markets from earlier this spring, as well as for crude oil. Our STEO scenario projects that WTI prices will likely stay higher than $35 for the remainder of this year. While our forecast has crude oil prices easing slightly through third quarter, the world market will still be tight as world petroleum demand picks up seasonally in the fourth quarter, increasing the potential for unexpected upward price pressure this winter. We continue to expect that the additional crude oil production, which producers with excess capacity have recently committed to provide, would allow for building of crude oil and product inventories. The additional supply will play an important role in reducing future volatility by making more inventory available to cover any unanticipated supply or demand developments. As noted above, price uncertainty is higher on the upside than the downside as we look ahead through the end of this year.

With that overview of the bottom line, the remainder of my testimony addresses the issues raised in your invitation – the driving forces behind crude oil supply and gasoline prices.

Retail Gasoline Price Components

Retail gasoline prices can be decomposed into four components: the cost of crude oil, refining costs and profits; distribution and marketing costs and profits, and taxes (Figure 2). Crude oil represented on average 40 percent of the gasoline price in May, refining costs and profits represented another 31 percent, distribution and marketing costs and profits were 8 percent, and taxes added 21 percent.

The crude oil and refining components, which together determine the wholesale price of gasoline, are by far the most important in explaining recent changes in retail gasoline prices. Each $1 per barrel, or 2.4 cents per gallon, increase in the price of crude oil increases the price of gasoline and other products by a comparable amount, holding other market factors equal, when fully passed through. Changes in the refining component, which is sensitive to the supply and demand balance in the gasoline market, are also significant. Tight crude oil markets result in tight product markets. When product markets are tight, as has been the case this year, product prices increase an additional amount over and above crude oil price changes. As discussed below, crude oil market conditions over the last 18 months have played a key role in driving decisions that have led to tight product markets.

All changes in the wholesale price of gasoline are ultimately reflected in retail gasoline prices, but the full passthrough of prices from the wholesale to the retail level

occurs over a period of weeks, rather than instantaneously. Therefore, after wholesale gasoline prices peak and start to decline, as has recently occurred in the U.S. gasoline market, retail prices may still be "digesting" the effects of the earlier increase, even while starting to reflect the decrease as well. Ultimately, however, retail price changes do not reflect any additional price premium beyond wholesale price changes.

With this background, I will now examine in more detail the recent situation in crude oil and wholesale gasoline markets.

Crude Oil Markets

The current state of the gasoline market in the United States has been created largely by world crude oil market conditions. Thus, how these conditions develop going forward is critical in determining whether or not price relief at the pump is likely through the rest of this year and beyond.

A combination of rising world oil demand growth and oil supply restraint by the Organization of Petroleum Exporting Countries (OPEC) has kept oil supplies tight, as reflected in low petroleum inventories worldwide since early last year. The price of West Texas Intermediate (WTI) crude oil rose by more than $12 per barrel from early December 2003 to reach over $42 at the beginning of June. Since then, the WTI price has dropped to $36.25 per barrel as of June 28 as signs of increasing crude and gasoline supplies are emerging.

How did we get here? On the supply side, the Venezuelan strike at the end of 2002 removed about 180 million barrels of supply from world markets from December 2002 through February 2003. Other OPEC countries were slow to respond to the loss of

supply, and world inventories were drawn down precipitously during this time. We had further losses from strife in Nigeria and the Iraq War as well. While OPEC increased production in 2003 and Venezuela and Iraq slowly recovered, the former to production levels that are still substantially below pre-strike output, the supply increases were not enough to allow world inventories to return to normal levels, given strong demand.

As world economies began recovering from the earlier downturn, world demand in 2003 grew about 1.3 million barrels per day, compared to the depressed 0.2 million barrel per day growth seen in 2002. This year, world demand is expected to increase 2.2 million barrels per day, with the U.S. and China making up half of that increase. Non-OPEC supply is expected to increase only about 1.0 million barrels per day, indicating OPEC must increase production at least 1.2 million barrels per day to just stay even and not allow for any inventory recovery.

World petroleum commercial inventories, which reflect the balance between production and demand and thus act as a good barometer of price pressure, have been at or below the bottom end of the normal range for most of 2003 and 2004 to date. The most recent IEA inventory data for April show lower levels than most analysts estimated, reinforcing how tight the market had become. The United States has followed world markets in this regard. For most of 2004, U.S. total petroleum inventories have been at the bottom of the normal range, at or below 2000 levels (Figure 3). With WTI prices significantly above those experienced during the 1998-2002 period, and above OPEC's stated target price band for half of 2003 and all of 2004 to date, the prevailing view has been that prices were bound to fall. This view that future prices will be lower (referred to

as backwardation in the futures market) has provided a disincentive for refiners to hold any more crude oil in storage than was absolutely necessary.

Current supply/demand balances reflected in inventories may not explain all of the current oil price increase. This year, concerns such as limited excess crude oil production capability, instability in the Middle East, and less available excess refining capacity than in the past may be contributing to higher prices. For example, if an abundance of excess crude oil production capacity were available, the level of inventories would be less critical, as new supply could be brought online quickly as needed. And with nearly all available excess capacity located in Saudi Arabia, markets are especially sensitive to unrest in that country. Still, despite the fact that doing so would at least temporarily reduce the amount of excess capacity in the world, increased production now from Saudi Arabia and other countries with some excess capacity would have the effect of reducing prices in the near-term and would help to replenish inventories, thereby creating a cushion to help withstand unexpected supply problems in the future and thus reduce risk premiums that may be in the market.

Gasoline Markets

When global crude oil markets tighten, product markets also tighten and prices increase. Between the most recent low point on December 1, 2003 and the peak spot gasoline price on May 19, 2004, the average spot gasoline price rose by 68 cents per gallon. Over the same time period, crude oil prices increased about 28 cents per gallon. This implies that 40 cents per gallon of the increase in spot prices was related to developments in gasoline markets. Some of the increase reflects seasonal influences.

Over 2000 through 2003, the difference between wholesale gasoline and crude oil prices increased by an average of 15 cents per gallon between December and May, which leaves another 25 cents per gallon of the increase attributed to the especially tight gasoline market experienced this year.

As with crude oil inventories, gasoline inventories have been low this year (Figures 4 & 5), both due to strong demand and tight supply relative to demand. Gasoline demand January through June has grown about 2.3 percent over the same period last year. Some of that strength reflects relatively low first half demand in 2003 due both to weak economic growth and bad weather that likely interfered with driving. Despite high prices, growth in vehicle miles traveled continued to push gasoline demand higher.

While over 90 percent of U.S gasoline is produced domestically, gasoline imports play an important role in meeting demand. Although demand is higher this year, imports are lower so far, with total gasoline imports averaging 885 thousand barrels per day compared to 925 thousand barrels per day last year. Although lower imports are partly due to the effect of required sulfur content reductions under the Tier 2/Gasoline Sulfur regulations as well as other changes in U.S. requirements for higher-valued, cleaner products, the reduction in imports is also due to world market conditions in general. With high world demand and competition for gasoline driving up both prices and freight rates, imports would be less economical even if our sulfur requirements had remained unchanged. We are seeing less imports from regions like Latin America where many refineries cannot produce our low sulfur gasoline, while imports increased from regions like Western Europe, which have similar sulfur specifications to those in the U.S. This

has occurred even though European inventories are also low, and implies extra premiums must be paid to attract those extra volumes.

Through June 25, U.S. gasoline production has averaged 8.6 million barrels per day in 2004, an increase of 3.4 percent over the same period last year. As we move into the summer driving season, refineries have emerged from their spring maintenance programs and are increasing gasoline production towards maximum levels, averaging about 8.7 million barrels per day in June.

With strong demand relative to supply keeping inventories low, the gasoline crack spread (the difference between wholesale spot gasoline and crude oil prices) has increased, as has been the case in previous tight spring gasoline markets such as occurred in 2000, 2001, and 2003. But this year, the tight balance and high margin situation has been sustained rather than occurring in a shorter price spike, and the increase is nationwide, with regional supply problems playing less of a role than they have in recent years.

International crude oil market conditions and strong demand have both played key roles in keeping gasoline inventories low. Strong worldwide demand results in increased competition for the excess gasoline that some world refiners produce, increasing the price U.S. suppliers must pay to attract added volumes, especially in view of the specification changes. Furthermore, the tightening crude oil market created incentives for refiners everywhere to buy only crude that is needed immediately and to draw down their product inventories. When markets tighten, the current prices and current crack spread widens, but expectations for prices in future months are typically lower. While a large current crack spread works to encourage refiners to produce as much product as possible for

immediate sale, the expectation for future declining prices discourages inventory accumulation. In addition, spring maintenance, which prevents refiners from running at maximum utilization, in conjunction with higher than expected demand and slightly lower imports than last year, all worked to keep U.S. gasoline markets tight. Gasoline inventories have been low and as yet show no signs of recovery to more normal levels.

With U.S. gasoline demand increasing for the summer, domestic market tightness will only ease with strong supply that allows inventories to move toward more normal levels and to relieve near-term price pressures. Gasoline imports may be the most important source of extra volumes, but domestic refiners may be able to contribute some increased volumes as well, despite already operating at high capacity utilization (96 per cent in June). This would be feasible provided that refinery problems going forward are minimal.

Crude oil markets are a critical key to turning this cycle back down. With extra crude oil, recently occurring underlying backwardation eases, and refiners worldwide have incentives to produce more product than that needed for the near term, which could result in inventories moving closer to normal levels. With world demand being lower during the summer than the winter, refiners outside the U.S. can produce such product. Until recently, signs of any increases in supply (crude oil or gasoline) had not occurred, and it is still early to know how the world balance will play out.

Looking Ahead

As noted at the start of my testimony, recent events show some promise of lower prices ahead, but EIA remains cautious about the final outcome. Saudi Arabia and

several other suppliers have pledged significant increases in crude oil production, which is critical to breaking the upward price pressure. Increases in crude oil production would help put downward pressure on crude oil prices, which would help lower gasoline prices.

We are already seeing some improvement in supply. Crude oil imports for the week ending June 25 averaged 10.6 million barrels per day, the fourth highest weekly average ever, and have averaged 10.4 million barrels per day over the past 4 weeks. Notwithstanding crude oil refinery inputs averaging over 16 million barrels per day over the past four-week period ending June 25, crude oil inventories have increased by 3.2 million barrels over that time span. As a result, U.S. crude oil stocks are now at 304.9 million barrels, down slightly from the previous week when it was at the highest level since August 2, 2002. More importantly, crude oil inventories are just 3.1 million barrels shy of the 5-year average for this time of year, and closest to the middle of average range they have been since October 2003.

The U.S. gasoline market may also be beginning to reflect a shift from this high price cycle. Beyond the 13 cent fall in retail prices over the last two weeks, average spot gasoline prices have been falling, dropping a total of 29 cents per gallon from May 19 through June 21. Since it takes about 1 to 2 weeks for changes in spot prices to begin being reflected in retail prices, the most recent declines in spot prices may indicate further declines in retail prices over the next couple of weeks. (This might not occur if supply disruptions increase spot prices enough to cancel the prior declines.)

U.S. gasoline inventories, however, have not recovered as much as crude oil inventories, which is to be expected. At 205.1 million barrels, they stand at 8.9 million barrels below they 5-year seasonal average. With strong gasoline demand and high

refinery utilization, product inventories would typically be slower to recover than crude oil inventories. It should be noted that gasoline inventories typically begin to decline in June. Without higher-than-usual imports or refinery runs through July, we could expect inventories to remain low through August. With levels remaining well below average for this time of year, there is little flexibility to respond to unexpected outages or increases in demand.

Consumers should not expect retail prices to fall back to prices seen before the recent increases. While prices may continue to fall modestly in the short term, present market conditions do not provide a reason to expect prices to return to their level at the start of this year anytime soon. Furthermore, with low inventories, regions in the United States are still subject to potential price spikes this summer.

The July Short-Term Energy Outlook (STEO) from EIA includes a gasoline price outlook that reflects our view of an improved balance between supply and demand in gasoline markets from earlier this spring. However, the July forecast reflects higher crude oil and gasoline prices through the summer than our June outlook. The current STEO scenario projects that WTI prices will likely remain near $37 per barrel through 2005, after averaging above $40 in May and easing toward the $37 mark thereafter. The June outlook suggested that prices would settle several dollars lower than the current outlook by the end of the year. The latest IEA data show world petroleum balances being tighter in April than early estimates, which was one reason why the forecast was adjusted. Continued uncertainties surrounding the security of production in Iraq and elsewhere also contributed to the upward adjustment.

We continue to expect that the additional crude oil production, which producers with excess capacity have recently committed to provide, would allow for building of oil and product inventories, but the lower inventory level starting point in April translates to a lower ending point than was expected in the June forecast, and a tighter market. EIA is projecting crude oil prices to decline from the $40.28 average in May, perhaps dropping as much as $3.30 per barrel by the end of the summer (Figure 6). While our forecast has crude oil prices easing through third quarter and staying at lower levels through year end, the world market may still be tight enough when fourth quarter unfolds to potentially result in some increase in crude oil prices as world petroleum demand picks up seasonally over the winter months.

For the second half of 2004, gasoline demand growth is expected to slow from 2.4 percent growth in the first half to about 1.5 percent over last year. With improvement in underlying fundamentals for both crude oil and gasoline, retail gasoline prices should decline from current levels. The June average price was $1.97, but average prices could drop as much as 10 cents per gallon in July, and as much as 20 cents per gallon by December from the June average. Still, with continuing tight gasoline markets reflected by low inventories, we could see increasing potential for higher prices in August as demand peaks before the summer driving season ends. However, we would not expect prices to surge to the extent they did last August unless we experience unusually large refinery problems. Also keep in mind that these projections assume no further supply disruptions either in crude oil or gasoline markets, and many factors are at work this year that increase the chances of such disruptions.

Conclusion

In conclusion, subject to the important caveat that no significant unanticipated disruptions occur, EIA anticipates somewhat lower prices for both gasoline and crude oil than those seen earlier this spring, but substantial upside risks remain. Since the industry will likely focus on gasoline at the expense of distillate this summer, and we already are seeing slow distillate inventory builds, we may enter the winter season this year with low heating oil inventories, increasing the potential for high heating fuel bills for consumers this winter. Sustained high levels of OPEC crude oil production, making continued high U.S. imports of both crude oil and products possible, would be helpful both in addressing the current situation in gasoline markets and ameliorating prospects for tight heating oil supplies during the upcoming winter.

Thank you for the opportunity to testify before the committee today.

Figure 1

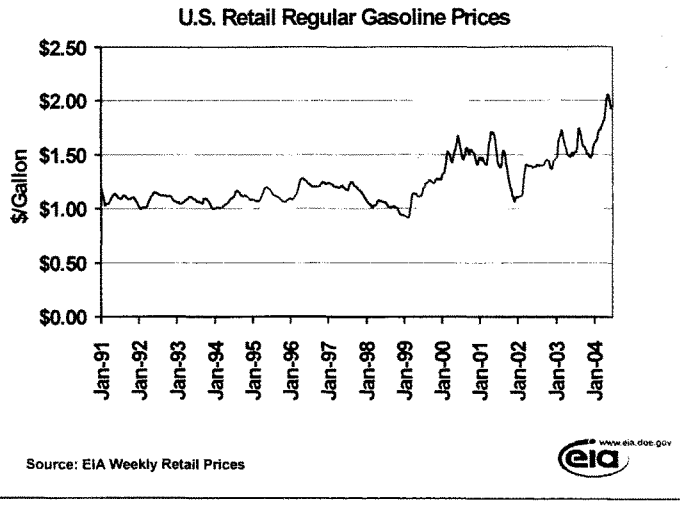

U.S. Retail Regular Gasoline Prices
$2.50
$2.00
$1.50
$1.00
$0.50
$0.00
$/Gallon
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Source: EIA Weekly Retail Prices
www.eia.doe.gov
eia

Figure 2

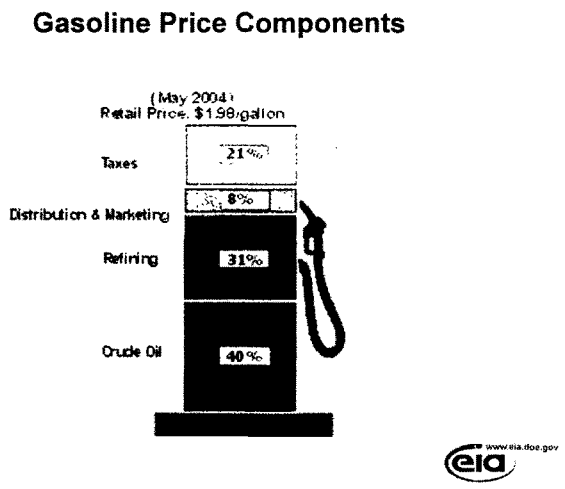

Gasoline Price Components
(May 2004)
Retail Price, $1.98/gallon
Taxes
21%
Distribution & Marketing
8%
Refining
31%
Crude Oil
40%
www.eia.doe.gov
eia

Figure 3.

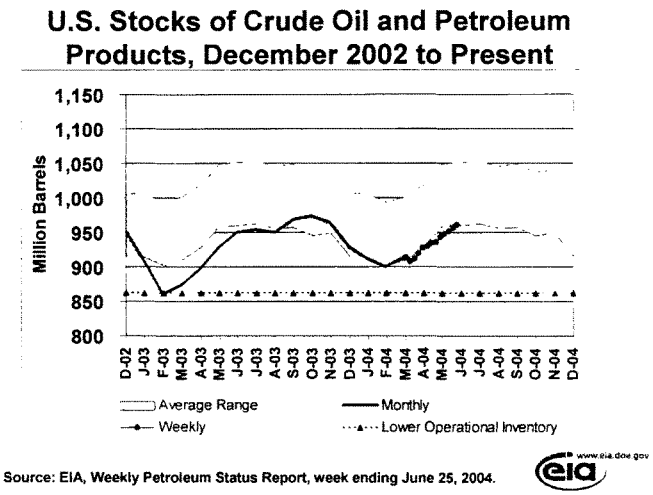
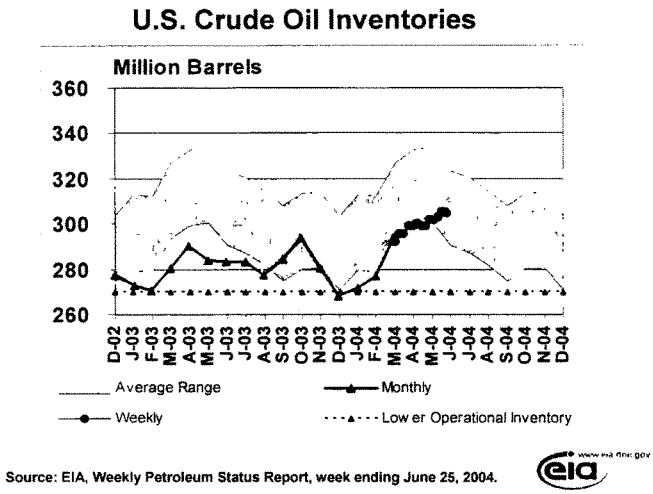

U.S. Stocks of Crude Oil and Petroleum Products, December 2002 to Present
Million Barrels
1,150
1,100
1,050
1,000
950
900
850
800
D-02
J-03
F-03
M-03
A-03
M-03
J-03
J-03
A-03
S-03
O-03
N-03
D-03
J-04
F-04
M-04
A-04
M-04
J-04
J-04
A-04
S-04
O-04
N-04
D-04
Average Range
Monthly
Weekly
Lower Operational Inventory
Source: EIA, Weekly Petroleum Status Report, week ending June 25, 2004.
www.eia.doe.gov
eia

Figure 4.



Source: EIA, Weekly Petroleum Status Report, week ending June 25, 2004.

Figure 5.

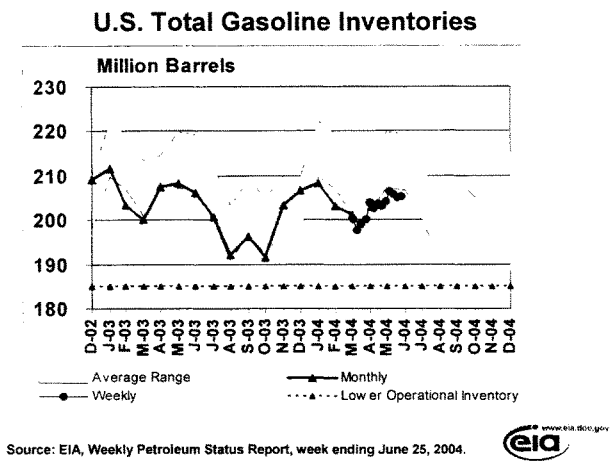
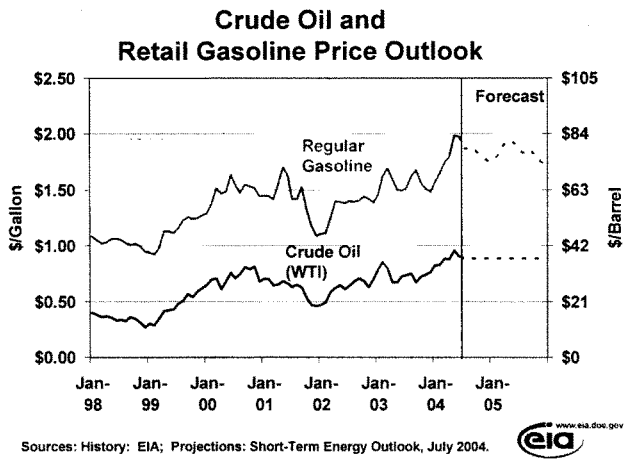

U.S. Total Gasoline Inventories
Million Barrels
230
220
210
200
190
180
D-02
J-03
F-03
M-03
A-03
M-03
J-03
J-03
A-03
S-03
O-03
N-03
D-03
J-04
F-04
M-04
A-04
M-04
J-04
J-04
A-04
S-04
O-04
N-04
D-04
Average Range
Monthly
Weekly
Low er Operational Inventory
Source: EIA, Weekly Petroleum Status Report, week ending June 25, 2004.

Figure 6


Crude Oil and
Retail Gasoline Price Outlook
$2.50
$2.00
$1.50
$1.00
$0.50
$0.00
$/Gallon
$105
$84
$63
$42
$21
$0
$/Barrel
Forecast
Regular
Gasoline
Crude Oil
(WTI)
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Sources: History: EIA; Projections: Short-Term Energy Outlook, July 2004.
www.eia.doe.gov
eia

Mr. OSE. I thank the gentleman.

Our next witness is the Assistant Secretary for Fossil Energy, the Acting Assistant Secretary for Fossil Energy at the Department of Energy, Mr. Mark Maddox.

Sir, welcome to our witness table. You're recognized for 5 minutes.

Mr. MADDOX. Thank you. Mr. Chairman, members of the subcommittee, thank you for giving me the opportunity to discuss the volatility of U.S. gasoline markets.

Gasoline price volatility should come as no surprise to anyone. President Bush foresaw the potential for gasoline price volatility when he unveiled the National Energy Policy 3 years ago. That potential has become a reality.

The NEP noted energy demand was rising, and will continue to rise, and recommended that we take steps to meet the growing demand most notably by increasing domestic production of energy and by encouraging energy efficiency and conservation. In the NEP, we said that energy supplies were being limited by restricted access to Federal lands and that regulatory uncertainty and overlap, in combination with low historical profitability and low rates of return, were contributing to a lack of investment in refineries.

The NEP also noted that our Nation's energy infrastructure, our network of pipelines, refineries, generators and transmission lines, was antiquated and would need to be updated to deal with an ever-expanding economy. Winston Churchill once spoke of finding security in diversity. Increased domestic production should be the cornerstone of diversity of oil supply for the United States.

The United States continues to be a major oil producer. According to the Energy Information Administration, the U.S. is currently producing about 5.8 million barrels of crude oil per day, making us the world's third ranked producer, behind only Saudi Arabia and Russia.

And, we still have considerable reserves to draw on. Today, 377 billion barrels of currently uneconomic and unrecoverable oil await cost-effective technologies in addition to 22 billion barrels of proved reserves. To help tap that immense resource, we are concentrating the Office of Fossil Energy's oil research and development efforts on highly promising technologies with big potential payoffs. We're working toward prolonging the life of mature fields through greater use of CO2 injection, by finding economic ways to bring CO2 produced at fossil fuel power plants to oil fields. We are working on improved imaging and diagnostic tools, such as the recently announced new cross well electromagnetic imaging tool that can see through the rock between widely separated oil wells, distinguish the oil, water and gas reservoirs and measure changes over time. And, we are developing microhole drilling technology that could reduce drilling costs by as much as two-thirds compared to a conventional well, reduce disposal costs for drilling fluids, cutting them by 20 percent, significantly lowering the environmental impacts of drilling activities, and open access to 218 billion barrels of oil at mature basins less than 5,000 feet deep. We are also working to increase access to high priority areas for oil and gas in our western mountain States, while protecting the environment.

We are making progress on boosting domestic production, but more must be done. We need a comprehensive energy bill that will open the Arctic National Wildlife Refuge, or ANWAR, to domestic petroleum production. ANWAR offers us the prospect of secure, domestically produced oil. We have lost almost a decade to debating the merits of developing ANWAR. Debate continues even as technological advances have made arguments over the environmental impact of development more tenuous. And, with each passing year, our growing reliance on foreign sources of energy make it more urgent that we take advantage of these domestic oil resources.

Higher gasoline prices have prompted various proposals for action, among them that we use the Strategic Petroleum Reserve to influence oil markets and reduce gasoline prices. We believe that abandoning our stated goal of filling the Strategic Petroleum Reserve is wrong from a national security point of view. President Bush has been very clear that the reserve is in place in case of major disruptions of energy supplies to the United States that could arise from a variety of events, such as natural disasters and terrorist attacks.

We adopted a plan for filling the Reserve by a predictable amount and over a certain length of time in order to affect markets as little as possible. The current rate of fill is about 105,000 barrels per day, which the EIA estimates has an impact of, at most, 1 or 2 cents per gallon of gasoline.

The world oil supply demand equation is largely responsible for higher gasoline prices. But all of the factors also play a part. One very important factor is our insufficient or outdated domestic pipeline and refinery capacity. The United States has not seen a new refinery built since 1976, and the expansion of existing refineries has slowed in recent years.

Mr. OSE. Mr. Maddox, how much time? I have a long series of witnesses today and many statements to make. Can you—I'll give you 10 seconds to wrap up.

Mr. MADDOX. Our refineries are running at near total capacity of about 96 percent while the EIA projects U.S. gasoline demand will increase 47 percent and diesel used for transportation will increase 73 percent by 2025. Thank you. I look forward to taking questions.

[The prepared statement of Mr. Maddox follows:]

Testimony by
Mark Maddox
Acting Assistant Secretary, Office of Fossil Energy
Department of Energy
Before the
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs
Committee on Government Reform
U.S. House of Representatives
July 7, 2004

Mr. Chairman, Members of the Subcommittee:

Thank you for giving me the opportunity to appear before this Subcommittee today to discuss the volatility of U.S. gasoline markets.

Gasoline price volatility should come as no surprise. President Bush foresaw the potential for gasoline price volatility when he unveiled his National Energy Policy (NEP) three and a half years ago. The NEP noted that energy demand was rising and would continue to rise, and recommended that we take steps to meet that growing demand, most notably by increasing domestic production of energy and by encouraging energy efficiency and conservation.

In the NEP, we said that energy supplies were being limited by restricted access to Federal lands and that regulatory uncertainty and overlap, in combination with low historical profitability and low rates of return, was contributing to a lack of investment in refineries.

The NEP also noted that our nation's energy infrastructure – our network of pipelines, refineries, generators, and transmission lines – was antiquated and would need to be updated to deal with an ever-expanding economy.

The NEP recognized the potential for price volatility as a result of increasing demand and tightened supplies for crude oil and gasoline both here in the United States and around the world. That potential has become reality.

Gasoline and oil prices are high because of tight supply and demand conditions worldwide. Gasoline demand has risen rapidly over the past year, as the U.S. and world economies have emerged from a period of slow growth. In particular, the U.S., Chinese, and other Asian economies are growing rapidly and well beyond experts' projections, which has boosted oil demand.

The price of West Texas Intermediate (WTI) crude oil rose by 40 percent in six months, peaking over $42 in June. Since then, the WTI price has dropped by several dollars, and that there are encouraging signs of increasing crude oil and gasoline supplies. The balance between current oil supply and demand continues to be tight, but there have been a number of recent positive developments I want to note.

The first is that the world's major oil producers have acknowledged prices were too high, and they have committed to do something about it. Worldwide production is already 3 million barrels per day more than last year, and more production is expected to be added this month and next. Second, our crude oil inventories are now at 305 million barrels, the highest level in nearly two years and just 3 million barrels lower than the 5-year average for this time of year. Higher levels of crude oil inventories should help add flexibility to the U.S. oil market and thus reduce price pressures.

Winston Churchill once spoke of finding security in diversity. Increased domestic production of our economic oil reserves should be the cornerstone of diversity of oil supply for the United States.

The United States continues to be a major oil producer. According to the Energy Information Administration, the U.S. is currently producing about 5.8 million barrels of crude oil per day, making us the world's third-ranked producer behind only Saudi Arabia and Russia – and we still have considerable reserves to draw on. Because U.S. oil fields are mature, they are more expensive to produce.

Today 377 billion barrels of currently uneconomic and unrecoverable oil await cost-effective technologies, in addition to 22 billion barrels of proved reserves. To help tap that immense resource, we are concentrating the Office of Fossil Energy's oil Research and Development efforts on highly promising technologies with big potential payoffs.

We're working on prolonging the life of mature fields through greater use of CO2 injection by finding economic ways to bring CO2 produced at fossil fuel power plants to the oil fields.

We're working on improved imaging and diagnostic tools such as the recently announced new cross-well electromagnetic imaging tool that can "see through" the rocks between widely separated oil wells; distinguish the oil, water and gases in a reservoir; and measure changes over time.

And we're developing microhole drilling technology that could reduce drilling costs by as much as two-thirds compared to a conventional well, reduce

disposal costs for drilling fluids and cuttings by 20 percent, significantly lower the environmental impact of drilling activities, and open up access to 218 billion barrels of oil in mature basins less than 5,000 feet deep.

We're also working to increase access to high priority areas for oil and gas in the Rocky Mountain states, while protecting the environment.

We are making progress on boosting domestic production but more must be done. We need a comprehensive energy bill that would do more to increase domestic oil production than any other single thing we can do: encourage large-scale domestic petroleum production in the Arctic National Wildlife Refuge (ANWR).

According to estimates by the United States Geological Survey, ANWR holds between 5.7 and 16 billion barrels of recoverable reserves, with a mean estimate of 10.4 billion barrels -- and that assumes the use of drilling technology now nearly a decade old. ANWR offers us the prospect of secure, domestically produced oil equal to almost 19 years worth of imports from Saudi Arabia.

Congress in 1995 authorized development of ANWR's oil resources. Had that bill not been vetoed by President Clinton, we could today be enjoying the benefit of up to one million barrels of oil per day from ANWR, according to EIA estimates, vastly improving our energy security and beneficially influencing world oil prices. To illustrate the impact ANWR's oil production could have on our security, consider this: the West Coast of the United States, the destination for Alaskan oil, today imports 780,000 barrels of oil per day. ANWR could be

supplying all of that demand with a considerable amount left over for use elsewhere.

We have lost almost a decade to debating the merits of developing ANWR. Debate continues even as advances in exploration and production technology have made arguments over the impact of ANWR's development on the environment more tenuous. And with each passing year, our growing reliance on foreign sources of energy makes it more urgent that we take advantage of our domestic oil resources.

Congress authorized development of ANWR once, and it should do it again – and soon. This time the President will sign the legislation and we will be able to get started on developing ANWR's oil resources for the long-term benefit of the American people.

The higher gasoline prices we are experiencing have prompted all sorts of proposals for action, one of them being that we use the Strategic Petroleum Reserve to affect the oil market and reduce gasoline prices. Some propose that we stop filling the SPR as a way to affect world oil prices and gasoline prices at the pump, despite the fact that such a small change in demand would have a negligible effect on prices.

There is also some talk about releasing a million barrels of oil a day from the SPR for 30 to 60 days, despite the negative implications for energy security and the terrible precedent of market meddling it would set.

With these proposals swirling around it is worth taking a minute to review and clarify the Administration's view on the role of the Strategic Petroleum Reserve.

We believe that abandoning our stated goal of filling the Strategic Petroleum Reserve is wrong from a national security point of view.

On November 13, 2001, President Bush directed Secretary Abraham to fill the Reserve up to its 700 million barrel capacity as a deliberate and cost-effective way to strengthen American energy and national security. He has been very clear that the Reserve is in place in case of major disruptions of energy supplies to the United States which could arise from a variety of events, including natural disasters, international disruptions of exports, and, of course, terrorist attacks. We face a tough and determined enemy in the war on terror, and filling the Strategic Petroleum Reserve to its 700 million barrel capacity can only serve to strengthen our position in that war.

Moreover, we adopted a plan for transparently filling the Reserve by a predictable amount and over a certain length of time in order to impact markets as little as possible. The current rate of fill is about 105,000 barrels per day, less than one percent of world demand exceeding 80 million barrels per day. While a moderate fill policy is unlikely to have a market impact, if we had heeded the calls to suspend filling the SPR, both energy and national security vulnerabilities would be markedly higher.

The Energy Information Administration estimates that the impact on gasoline prices of filling the reserve is at most one or two cents per gallon. Given

the substantial year over year change in gasoline prices, one or two cents is inconsequential, and pales by comparison to the difference between one service station and another.

Secretary Abraham recently stated the Administration position on this proposal very clearly when he said, "...imperiling the national security for the sake of a minimal reduction in price would be nothing short of irresponsible. Simply put, the Reserve is for the long-term protection of the American people, not to cut the price of gas by two cents."

We remain confident that basic supply security exists. At the same time, there should be no question that the United States and the other countries with similar strategic reserves are prepared to draw on those reserves if circumstances warrant. We are both prepared and determined to use our Reserves to offset any terrorist-related or other significant disruption in supply.

As I stated earlier, the world oil supply-demand equation is largely responsible for the higher gasoline prices we are experiencing this year. But other factors also play a part. If today we were producing an additional one million barrels per day from domestic sources, oil production in the rest of the world had increased substantially, and the SPR stood filled to capacity and ready to do its job in the event of a national security emergency, we would still be faced with a serious and long-standing obstacle to lower gasoline prices: insufficient or outdated domestic pipeline and refinery capacity.

The United States has not seen a new refinery built since 1976, and the expansion of existing refineries has slowed in recent years. The result is that our

refineries are running at near-total capacity of about 96 percent. This means that even if additional crude oil supplies were available, we could produce very little additional gasoline to meet rising demand. Yet the EIA projects that, by 2025, U.S. gasoline consumption will increase by 47 percent from current levels and consumption of transportation distillate – which is mostly diesel —will increase by 73 percent from current levels.

To meet this growing demand, we will need both additional refining capacity and higher product imports, but both of these potential sources of new supply face challenging economic and regulatory hurdles.

In order to help assure supply will be available when needed, Secretary Abraham last month asked the National Petroleum Council (NPC) to undertake a high-priority, fast-track study of American refining capacity.

The purpose of the NPC, as you know, is to advise, inform, and recommend actions to the Secretary of Energy with respect to any matter relating to oil and natural gas. Its comprehensive report called *Balancing Natural Gas Policy*, which was released last September, outlined the long-term policies and actions needed to meet our long-term natural gas needs.

The new refinery study is intended to identify the nation's future demand for refined products, our domestic capacity to meet future needs, the barriers to meeting future demand, and the capital factors that will drive supply growth. The NPC will also examine how worldwide capacity will affect our access to petroleum products.

Because the market watches crude oil inventory levels very closely, and because they play an important role in setting prices, the NPC will also study issues related to the nation's oil inventory levels. We have assumed 270 million barrels of crude oil as the minimally acceptable inventory for operations without technical or logistical bottlenecks for a number of years now. In order to develop policies that will best serve the American people, we need to know whether this 270 million barrel level is an accurate estimate of a minimum domestic operating level in the refining industry in 2004, or whether it should be updated.

If there is one thing a smoothly functioning market needs, it is accurate, timely, up-to-date information. To help secure that information, the United States has signed on to the Joint Oil Data Initiative, an international effort to improve the availability and timeliness of international oil market data, and we continue to work cooperatively with our neighbors, Canada and Mexico, to improve energy data sharing.

Let me say in conclusion that our Administration will continue to monitor developments affecting the prices of gasoline.

We will continue to be vigilant to ensure consumers are protected.

We will continue to respond to local incidents that may produce regional price spikes, working with industry and state and local governments on a case-by-case basis.

We will maintain the SPR in a state of readiness to respond to any supply emergency.

We will continue to encourage energy efficiency and conservation measures.

We will continue our discussions with OPEC and non-OPEC producers about actions they can take to support a growing world economy.

We will continue the research and development programs that promise a long-term solution to our energy and environmental concerns: a new era of hydrogen-based energy and reduced reliance on oil.

And we will continue to work with Congress to pass comprehensive energy legislation to help provide for America's energy and economic security.

This concludes my testimony, Mr. Chairman, and I would be glad to respond to any questions the Subcommittee may have.

END

Mr. OSE. Thank you.

Our third witness, Mr. Jeffrey Holmstead, who is the Assistant Administrator for Air and Radiation at the Environmental Protection Agency.

Mr. Holmstead, we have received your written statement for the record, and it's been entered therein. You're recognized for 5 minutes for the purpose of summarizing.

Mr. HOLMSTEAD. Thank you, Mr. Chairman and members of the subcommittee. I appreciate the chance to be here today and talk a little bit more about the clean fuels programs and their impact on gasoline prices.

As most of you probably know, EPA began to require improvements in the quality of motor fuels back in the 1970's when the agency required that lead be phased out of gasoline, but the focus of attention in recent years has been on two clean fuel programs that are a result of the 1990 amendment to the Clean Air Act.

The first one is the Reformulated Gasoline Program [RFG], and the other is the Tier 2 Low Sulfur Gasoline Program. By statute, every gallon of RFG is required to obtain a minimum amount of an oxygenate, such as ethanol or MTBE. EPA and the Department of Energy have estimated that the cost of producing RFG is approximately 4 to 8 cents a gallon greater than the cost of producing conventional gasoline. About half of this cost increment is due to the cost of the oxygenate requirement itself.

Now, I should note that the average retail price of RFG today, what people pay at the pumps, is actually a little less than 4 cents a gallon greater than the average retail price of conventional gasoline. That's a pretty good indication of the cost to consumers of this Federal mandate, about 4 cents a gallon.

The second clean fuel program I mentioned, the so-called Tier 2 Program began on January 1st of this year. By 2006, when this program is fully phased in, it will reduce the sulfur content of most gasoline sold in the United States by about 90 percent. This reduction in the sulfur content immediately reduces emissions from all gasoline powered vehicles, and it also enables the use of more advanced pollution controls on these vehicles. Thus, the Tier 2 Program not only addresses fuels but also includes a phase which begins this year of more stringent tailpipe standards for all light-duty vehicles, including cars, trucks, mini vans and SUVs.

We estimate that the cost of the Tier 2 Fuel Program is about 1 cent per gallon today, and will still be less than 2 pennies a gallon when the program is fully phased in in 2006. Now, the important thing of course is to compare the cost of the program to its benefits.

On the benefit side, we estimate that the Tier 2 Program, including both the fuel and engine standards will prevent every year approximately 4,000 premature deaths, more than 10,000 cases of chronic and acute bronchitis and tens of thousands of respiratory problems. As far as I know, everyone agrees that the public health benefits of this program far exceed the cost.

As you all know, the retail price of gasoline is affected by many factors. We believe that the run-up in gasoline prices earlier this year was primarily the result of a steep increase in crude oil prices.

But, what we can say with great certainty is that environmental regulations have had a minimal effect on gasoline prices.

Let me turn now quickly to the issue of so-called boutique fuels. The Clean Air Act specifically authorizes States to regulate fuels as part of their State Air Quality Plans if they need this type of regulation to achieve national air quality standards. This authorization in the Clean Air Act has resulted in a number of different fuel formulations being required by different States. These formulations are often referred to as boutique fuels; 15 States have adopted their own Clean Fuel Programs for part or all of their State.

In October 2001, EPA released a comprehensive white paper discussing a range of issues associated with boutique fuels. The main conclusions of this white paper were, one, that the current gasoline refining and distribution systems work well except during times of unexpected disruptions, a refinery fire, a pipeline outage, something like that. We also found, two, that fewer fuel types are likely to improve fungibility and, three, options exist to reduce the number of fuel types and to improve fungibility while maintaining or improving air quality. But, the fungibility benefit from taking these actions are likely to be modest, and there may be significant cost or supply implications associated with any of these options.

Now, we are committed to working with Congress to explore ways to maintain or enhance the environmental benefits of these programs while exploring ways to increase the fungibility of the infrastructure and increase flexibility and improve and provide added gasoline market liquidity. The best way we have identified to accomplish these goals is to replace the current oxygen content requirements for RFG with the renewal fuel standard that includes a flexible national credit trading system. But, we also note that this can only be done through legislation such as the renewable fuel provisions in the energy bill which the administration strongly supports.

Mr. OSE. Mr. Holmstead——

Mr. HOLMSTEAD. Again, I thank you for the chance to be here today and look forward to answering any questions you may have.

[The prepared statement of Mr. Holmstead follows:]

TESTIMONY OF
JEFFREY HOLMSTEAD
OFFICE OF AIR AND RADIATION
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
COMMITTEE ON GOVERNMENT REFORM
ENERGY POLICY, NATURAL RESOURCES AND
REGULATORY AFFAIRS SUBCOMMITTEE
UNITED STATES HOUSE OF REPRESENTATIVES

JULY 7, 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

Comment: EIA and DOE are addressing the overall supply and demand picture, so be brief here.

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.

Comment: Repeat of previous statement re: Tier 2, plus 2-3% claim that is not necessarily agreed to be all agencies. Delete.

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.

Mr. OSE. I thank the gentleman.

Our fourth witness on this panel is Mr. Jim Wells. He is Director of the Natural Resources Environment Section at the Government Accountability Office.

Sir, we have received your testimony. It's been read. It's part of the record. You're recognized for 5 minutes to summarize.

Mr. WELLS. Thank you, Mr. Chairman. We welcome the opportunity to contribute to the hearing.

Accompanying me today is Mr. Scott Farrow, GAO's Chief Economist.

Our presence today relates to the GAO report that we published in March looking at the effects of mergers in the U.S. petroleum industry. In 2002, we agreed to study the effect of the wave of mergers, that is acquisitions, joint ventures that were occurring across the petroleum industry in the 1990's.

More than 2,600 mergers have changed the landscape on how the sale of petroleum products occur. Large oil companies combined with other large oil companies who previously competed against each other. For example, in 1998, BP and Amoco merged and later acquired Arco, while Exxon acquired Mobil and thousands more continued.

Can the wave of mergers reduce competition and generally lead to higher gasoline prices? Our study says yes. We began our work by talking with the FTC. We found no existing FTC study on a retrospective impact of oil mergers, at least none that was publicly available. And, we met with skepticism from the FTC staff as to whether this type of study was even impossible or possible to do. What analysis was in the literature and publications was on a smaller scale, and clearly, it was not nationwide or dealing with multiple mergers. Therefore, we had to construct econometric models to estimate the effects of mergers and market concentration on prices because we believe bottlenecks in the gasoline markets are most common at the refining and distribution levels. Also, price changes at wholesale generally get passed through to prices at the pump.

What we found was a marketplace that has changed. There are fewer oil companies and refiners. There is less non-branded gasoline that was traditionally offered in the marketplace at lower prices. Distribution and availability of gasoline to the smaller dealers, the moms and the pops, is on the decrease. Market concentration, which relates to market shares and merger activities, increased at the refinery levels.

Clearly, mergers potentially enable companies to gain synergy. No doubt about it. They can grow their assets. Stockholder value is important. They can reduce cost by achieving efficiencies that may be passed along to the consumers at the gas pump. We did find mergers that caused prices to decrease.

However, if you do get bigger and you have fewer competitors, you may also gain market power, the ability to raise prices above competitive levels. Taken collectively, our models suggest that wholesale prices increased anywhere from 1 to 7 cents for six out of the eight specific mergers, the major mergers that we analyzed. This specific finding is based on using hundreds of rack or terminal city prices for each week from 1994 through the year 2000, data

at least 6 months before the merger and 6 months after the merger. And, we attempted to control for all other factors that varied over time and the economic conditions.

Our findings would imply that overall, the effects of market power which tend to increase prices won out over the efficiency gains of mergers which would tend to decrease prices. We assume that these price increases will carry forward after the mergers and in a sense be embedded, if you will, in an unchanging way in today's 2004 gasoline prices.

Clearly, in a study of this magnitude, you can expect to have differences of opinion. FTC, as you will hear this morning, weighs in with their views. We can agree to disagree, I hope. Although no econometric model can perfectly depict reality, we believe that our models are sound, and produce reasonable estimates. We are, in fact, very strongly supporting and welcoming public scrutiny and discourse on issues like gasoline prices. We even welcome sorting through this and these issues with the FTC.

Having Bill sit to my right, we agreed to be friends today, and we agreed that our goal is to work together in the future to deal with some of the estimates and issues with the GAO product.

Mr. Chairman, our hearings today will add to this debate as our Nation struggles with high gasoline prices. Mr. Chairman, in summary, we believe that the retrospective look that GAO did, looking back at what happened in the 1990's, it can do two things. One, it can help the Congress sort through today and other days some of the background to what's happening with 2004 price spikes. Two, we would hope that our study could influence what the regulatory antitrust agencies like the FTC do in the future to protect the competitive process and consumers.

I also want to thank Mr. Cooper for giving me a warning about the potential challenging questions that I may face. I thank you.

[The prepared statement of Mr. Wells follows:]

United States General Accounting Office

GAO

Testimony

Before the Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, Committee on Government Reform, House of Representatives

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ENERGY MARKETS

Mergers and Many Other Factors Affect U.S. Gasoline Markets

Statement of Jim Wells, Director
Natural Resources and Environment

GAO-04-951T

July 7, 2004

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Highlights

Highlights of GAO-04-951T, a report to Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, Committee on Government Reform, House of Representatives

ENERGY MARKETS

Mergers and Many Other Factors Affect U.S. Gasoline Markets

Why GAO Did This Study

Gasoline is subject to dramatic price swings. A multitude of factors cause volatility in U.S. gasoline markets, including world crude oil costs, limited refining capacity, and low inventories relative to demand.

Since the 1990s, another factor affecting U.S. gasoline markets has been a wave of mergers in the petroleum industry, several of them between large oil companies that had previously competed with each other. For example, in 1999, Exxon, the largest U.S. oil company, merged with Mobil, the second largest.

This testimony is based primarily on *Energy Markets: Effects of Mergers and Market Concentration in the U.S. Petroleum Industry* (GAO-04-96, May 17, 2004). This report examined mergers in the U.S. petroleum industry from the 1990s through 2000, the changes in market concentration (the distribution of market shares among competing firms) and other factors affecting competition in the U.S. petroleum industry, how U.S. gasoline marketing has changed since the 1990s, and how mergers and market concentration in the U.S. petroleum industry have affected U.S. gasoline prices at the wholesale level.

To address these issues, GAO purchased and analyzed a large body of data and developed state-of-the art econometric models for isolating the effects of eight specific mergers and increased market concentration on wholesale gasoline prices. Experts peer-reviewed GAO's analysis.

www.gao.gov/cgi-bin/getrpt?GAO-04-951T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Jim Wells at (202) 512-3841 or wellsj@gao.gov.

What GAO Found

One of the many factors that can impact gasoline prices is mergers within the U.S. petroleum industry. Over 2,600 such mergers have occurred since the 1990s. The majority occurred later in the period, most frequently among firms involved in exploration and production. Industry officials cited various reasons for the mergers, particularly the need for increased efficiency and cost savings. Economic literature also suggests that firms sometimes merge to enhance their ability to control prices.

Partly because of the mergers, market concentration has increased in the industry, mostly in the downstream (refining and marketing) segment. For example, market concentration in refining increased from moderately to highly concentrated on the East Coast and from unconcentrated to moderately concentrated on the West Coast. Concentration in the wholesale gasoline market increased substantially from the mid-1990s so that by 2002, most states had either moderately or highly concentrated wholesale gasoline markets. On the other hand, market concentration in the upstream (exploration and production) segment remained unconcentrated by the end of the 1990s. Anecdotal evidence suggests that mergers also have changed other factors affecting competition, such as firms' ability to enter the market.

Two major changes have occurred in U.S. gasoline marketing related to mergers, according to industry officials. First, the availability of generic gasoline, which is generally priced lower than branded gasoline, has decreased substantially. Second, refiners now prefer to deal with large distributors and retailers, which has motivated further consolidation in distributor and retail markets.

Based on data from the mid-1990s through 2000, GAO's econometric analyses indicate that mergers and increased market concentration generally led to higher wholesale gasoline prices in the United States. Six of the eight mergers GAO modeled led to price increases, averaging about 2 cents per gallon. Increased market concentration, which reflects the cumulative effects of mergers and other competitive factors, also led to increased prices in most cases. For conventional gasoline, the predominant type used in the country, the change in wholesale price due to increased market concentration ranged from a decrease of about 1 cent per gallon to an increase of about 5 cents per gallon. For boutique fuels sold in the East Coast and Gulf Coast regions, wholesale prices increased by about 1 cent per gallon, while prices for boutique fuels sold in California increased by over 7 cents per gallon. GAO also identified price increases of one-tenth of a cent to 7 cents that were caused by other factors included in the models—particularly low gasoline inventories relative to demand, high refinery capacity utilization rates, and supply disruptions in some regions.

FTC disagreed with GAO's methodology and findings. However, GAO believes its analyses are sound.

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to participate in discussing issues related to the volatility of U.S. gasoline markets. According to data from the Energy Information Administration (EIA), the average nationwide price paid for regular gasoline (the type of gasoline used most in the United States) at the pump was as high as $2.06 cents/gallon by the end of May 2004, an increase of about 58 cents/gallon or 39 percent over the same time last year. On the West Coast, gasoline prices reached an average of $2.34 cents/gallon by the end of May 2004, an increase of about 65 cents/gallon or 38 percent over the same time last year. Although prices have recently begun to fall, elevated gasoline prices can be an economic burden to American consumers and the economy.

A broad range of factors affects the volatility of gasoline prices. These factors typically include changes in crude oil costs, limited refinery capacity, inventory levels relative to demand, supply disruptions, and regulatory factors—such as the many different gasoline formulations that are required to meet varying federal and state environmental laws. Federal and state taxes are also a component of U.S. gasoline prices, but these do not fluctuate often. We have addressed many of these issues in several studies on energy markets. Among other things, our past studies showed that

- the U.S. economy is vulnerable to oil supply disruptions that can impose significant economic costs, and in our report options were identified to mitigate their effects;
- the Clean Air Act specifically requires refiners to produce reformulated gasoline, and the requirement to provide a specific blend for a specific area can present challenges to refiners and other suppliers if there are supply disruptions;
- gasoline price spikes were generally higher in California from January 1995 through December 1999 than in the rest of the nation, partly because of the difficulty in substituting for the loss of supply of CARB, the special reformulated gasoline used in California, when there were unplanned refinery outages;
- retail gasoline prices in California rose faster than they fell in response to a delayed pass-through in changes in the wholesale price of gasoline;

- as we testified in 2001, each day vehicles in the United States consume about 10 million barrels of petroleum fuels, primarily gasoline and diesel, and according to projections, the figure will rise to about 15 million barrels per day by 2010, raising concerns about the nation's ability to satisfy this growing demand;
- the transportation sector is more than 90 percent dependent on petroleum-based fuels, such as gasoline, and this dependence contributes to our vulnerability to oil supply disruptions and related price shocks; and
- existing federal programs to promote alternative fuel vehicles and alternative fuel use in the transportation sector have faced significant barriers.

Market consolidation is another factor that can affect the price of gasoline. Our testimony today will focus on our recent study that examined the effects of market consolidation and other factors on the U. S. petroleum industry.[1]

Since the 1990s, the U.S. petroleum industry has experienced a wave of mergers, acquisitions, and joint ventures, several of them between large oil companies that had previously competed with each other for the sale of petroleum products.[2] A few examples include the merger between British Petroleum (BP) and Amoco in 1998 to form BPAmoco, which later merged with ARCO, and the merger in 1999 between Exxon, the largest U.S. oil company, and Mobil, the second largest. In general, mergers raise concerns about potential anticompetitive effects on the U.S. petroleum industry and ultimately on gasoline prices because mergers could result in greater market power for the merged companies, potentially allowing

[1] See U.S. General Accounting Office, *Energy Markets: Effects of Mergers and Market Concentration in the U.S. Petroleum Industry*, GAO-04-96 (Washington, D.C., May 17, 2004). Additional related GAO studies include *U.S. Ethanol Market: MTBE Ban in California*, GAO-02-440R (Washington, D.C., Feb. 27, 2002); *Alternative Motor Fuels and Vehicles: Impact on the Transportation Sector*, GAO-01-957T (Washington, D.C., July 10, 2001); *Motor Fuels: California Gasoline Price Behavior*, GAO/RCED-96-121 (Washington, D.C., Apr. 28, 2000); *International Energy Agency: How the Agency Prepares Its World Market Statistics*, GAO/RCED-99-142 (Washington, D.C., May 7, 1999); and *Energy Security: Evaluating U.S. Vulnerability to Oil Supply Disruptions and Options for Mitigating Their Effects*, GAO/RCED-97-6 (Washington, D.C., Dec. 12, 1996).

[2] We refer to all of these transactions as mergers.

them to increase prices above competitive levels.[3] On the other hand, mergers could also yield cost savings and efficiency gains, which may be passed on to consumers in lower prices. Ultimately, the impact depends on whether market power or efficiency dominates.

Our report examined mergers in the U.S. petroleum industry from the 1990s through 2000, the changes in market concentration (the distribution of market shares among competing firms) and other factors affecting competition in the U.S. petroleum industry, how U.S. gasoline marketing has changed since the 1990s, and how mergers and market concentration in the U.S. petroleum industry have affected U.S. gasoline prices at the wholesale level.

To address these issues, we purchased and analyzed a large body of data on mergers and wholesale gasoline prices, as well as data on other relevant economic factors. We also developed econometric models for examining the effects of eight specific mergers and increased market concentration on U.S. wholesale gasoline prices nationwide. It is noteworthy that using econometric models allowed us to measure the effects of mergers and market concentration while isolating the effects of several other factors that could influence wholesale gasoline prices, such as world crude oil costs, limited refining capacity, or low inventories relative to demand.

In the course of our work, we consulted with Dr. Severin Borenstein,[4] a recognized expert in the modeling of gasoline markets; interviewed officials across the industry spectrum; and reviewed relevant economic literature and numerous related studies. We also used an extensive peer review process to obtain comments from experts in academia and relevant government agencies. We conducted our work in accordance with generally accepted government auditing standards.

In summary, we found the following:

[3]The Federal Trade Commission and Department of Justice have defined market power for a seller as the ability to profitably maintain prices above competitive levels for a significant period of time.

[4]Dr. Borenstein is E.T. Grether Professor of Business Administration and Public Policy at the Haas School of Business, University of California, Berkeley. He is also the Director of the University of California Energy Institute.

- Over 2,600 mergers occurred in the petroleum industry from 1991 through 2000. The majority of the mergers occurred during the second half of the decade, most frequently in the upstream (exploration and production) segment of the industry. Petroleum industry officials cited various reasons for this wave of mergers, particularly the need for increased efficiency and cost savings. Economic literature suggests that firms also sometimes use mergers to enhance their market power. Ultimately, the reasons cited by both sources generally relate to the merging companies' desire to maximize profit or shareholder wealth.

- Market concentration, which is commonly measured by the Herfindahl-Hirschman Index (HHI), has increased in the downstream (refining and marketing) segment of the U.S. petroleum industry since the 1990s, partly as a result of merger activities, while changing very little in the upstream (exploration and production) segment. In the downstream segment, market concentration in refining increased from moderately to highly concentrated on the East Coast and from unconcentrated to moderately concentrated on the West Coast; it increased but remained moderately concentrated in the Rocky Mountain region. Concentration in the wholesale gasoline market increased substantially from the mid-1990s so that by 2002, most states had either moderately or highly concentrated wholesale gasoline markets. On the other hand, market concentration decreased somewhat in the upstream segment and remained unconcentrated by the end of the 1990s. Anecdotal evidence suggests that mergers also have affected other factors that impact competition, such as the ability of new firms to enter the market.

- According to industry officials, two major changes have occurred in U.S. gasoline marketing since the 1990s, partly related to mergers. First, the availability of unbranded (generic) gasoline has decreased substantially. Unbranded gasoline is generally priced lower than branded gasoline, which is marketed under the refiner's trademark. Industry officials generally attributed the decreased availability of unbranded gasoline to, among other factors, a reduction in the number of independent refiners that typically supply unbranded gasoline. Second, industry officials said that refiners now prefer dealing with large distributors and retailers. This preference, according to the officials, has motivated further consolidation in both the distributor and retail markets, including the rise of hypermarkets—a relatively new breed of gasoline market participants that includes such large retail warehouses as Wal-Mart and Costco.

- Our econometric analyses, using data from the mid-1990s through 2000, show that oil industry mergers generally led to higher wholesale gasoline prices (measured in our report as wholesale prices less crude oil prices),

although prices sometimes decreased. Six of the eight specific mergers we modeled—which mostly involved large, fully vertically integrated companies—generally resulted in increases in wholesale prices for branded and/or unbranded gasoline of about 2 cents per gallon, on average. Two of the mergers generally led to price decreases, of about 1 cent per gallon, on average. For conventional gasoline—the predominant type used in the United States except in areas that require special gasoline formulations—the change in wholesale price ranged from a decrease of about 1 cent per gallon to an increase of about 5 cents per gallon. The preponderance of price increases over decreases indicates that the market power effects, which tend to increase prices, for the most part outweighed the efficiency effects, which tend to decrease prices.

- Our econometric analyses also show that increased market concentration, which captures the cumulative effects of mergers as well as other market structure factors, also generally led to higher prices for conventional gasoline and for boutique fuels—gasoline that has been reformulated for certain areas in the East Coast and Gulf Coast regions and in California to lower pollution. The price increases were particularly large in California, where they averaged about 7 cents per gallon. Higher wholesale gasoline prices were also a result of other factors: low gasoline inventories, which typically occur in the summer driving months; high refinery capacity utilization rates; and supply disruptions, which occurred in the Midwest and on the West Coast.

- We also identified price increases of one-tenth of 1 cent to 7 cents per gallon that were caused by other factors included in our models—particularly low gasoline inventories relative to demand, high refinery capacity utilization rates, and supply disruptions that occurred in some regions.

As I noted earlier, we used extensive peer review to obtain comments from outside experts, including the Federal Trade Commission (FTC) and EIA, and we incorporated those comments as appropriate. FTC disagreed with our methodology and findings and provided extensive comments, which we have addressed in our report. Our findings are generally consistent with previous studies of the effects of specific oil mergers and of market concentration on gasoline prices. We believe, however, that ours is the first comprehensive study to model the impact of the industry's 1990s wave of mergers on wholesale gasoline prices for the entire United States, an effort that required us to acquire large datasets and perform complex analyses.

Background

Many firms of varying sizes make up the U.S. petroleum industry. While some firms engage in only limited activities within the industry, such as exploration for and production of crude oil and natural gas or refining crude oil and marketing petroleum products, fully vertically integrated oil companies participate in all aspects of the industry. Before the 1970s, major oil companies that were fully vertically integrated controlled the global network for supplying, pricing, and marketing crude oil. However, the structure of the world crude oil market has dramatically changed as a result of such factors as the nationalization of oil fields by oil-producing countries, the emergence of independent oil companies, and the evolution of futures and spot markets in the 1970s and 1980s. Since U.S. oil prices were deregulated in 1981, the price paid for crude oil in the United States has been largely determined in the world oil market, which is mostly influenced by global factors, especially supply decisions of the Organization of Petroleum Exporting Countries (OPEC) and world economic and political conditions.

The United States currently imports over 60 percent of its crude oil supply. In contrast, the bulk of the gasoline used in the United States is produced domestically. In 2001, for example, gasoline refined in the United States accounted for over 90 percent of the total domestic gasoline consumption. Companies that supply gasoline to U.S. markets also post the domestic gasoline prices. Historically, the domestic petroleum market has been divided into five regions: the East Coast region, the Midwest region, the Gulf Coast region, the Rocky Mountain region, and the West Coast region.[5]

Proposed mergers in all industries, including the petroleum industry, are generally reviewed by federal antitrust authorities—including FTC and the Department of Justice (DOJ)—to assess the potential impact on market competition. According to FTC officials, FTC generally reviews proposed mergers involving the petroleum industry because of the agency's expertise in that industry. FTC analyzes these mergers to determine if they would likely diminish competition in the relevant markets and result in harm, such as increased prices. To determine the potential effect of a merger on market competition, FTC evaluates how the merger would change the level of market concentration, among other things. Conceptually, the higher the concentration, the less competitive the market is and the more likely that firms can exert control over prices. The

[5] These regions are known as Petroleum Administration for Defense Districts (PADDs).

ability to maintain prices above competitive levels for a significant period of time is known as market power.

According to the merger guidelines jointly issued by DOJ and FTC, market concentration as measured by HHI is ranked into three separate categories: a market with an HHI under 1,000 is considered to be unconcentrated; if HHI is between 1,000 and 1,800 the market is considered moderately concentrated; and if HHI is above 1,800, the market is considered highly concentrated. [6]

While concentration is an important aspect of market structure—the underlying economic and technical characteristics of an industry—other aspects of market structure that may be affected by mergers also play an important role in determining the level of competition in a market. These aspects include barriers to entry, which are market conditions that provide established sellers an advantage over potential new entrants in an industry, and vertical integration.

Mergers Occurred in All Segments of the U.S. Petroleum Industry in the 1990s for Several Reasons

Over 2,600 merger transactions occurred from 1991 through 2000 involving all three segments of the U.S. petroleum industry. Almost 85 percent of the mergers occurred in the upstream segment (exploration and production), while the downstream segment (refining and marketing of petroleum) accounted for about 13 percent, and the midstream segment (transportation) accounted for over 2 percent. The vast majority of the mergers—about 80 percent—involved one company's purchase of a segment or asset of another company, while about 20 percent involved the acquisition of a company's total assets by another so that the two became one company. Most of the mergers occurred in the second half of the decade, including those involving large partially or fully vertically integrated companies.

Petroleum industry officials and experts we contacted cited several reasons for the industry's wave of mergers in the 1990s, including achieving synergies, increasing growth and diversifying assets, and reducing costs. Economic literature indicates that enhancing market power is also sometimes a motive for mergers. Ultimately, these reasons mostly relate to companies' desire to maximize profit or stock values.

[6]HHI is calculated by summing the squares of the market shares of all the firms within a given market.

Mergers Contributed to Increases in Market Concentration and to Other Changes That Affect Competition

Mergers in the 1990s contributed to increases in market concentration in the downstream segment of the U.S. petroleum industry, while the upstream segment experienced little change overall. We found that market concentration, as measured by the HHI, decreased slightly in the upstream segment, based on crude oil production activities at the national level, from 290 in 1990 to 217 in 2000. Moreover, based on benchmarks established jointly by DOJ and FTC, the upstream segment of the U.S. petroleum industry remained unconcentrated at the end of the 1990s.

The increases in market concentration in the downstream segment varied by activity and region.

- For example, the HHI of the refining market in the East Coast region increased from a moderately concentrated level of 1136 in 1990 to a highly concentrated level of 1819 in 2000. In the Rocky Mountain and the West Coast regions, it increased from 1029 to 1124 and from 937 to 1267, respectively, in that same period. Thus, while each of these refining markets increased in concentration, the Rocky Mountain remained within the moderately concentrated range but the West Coast changed from unconcentrated in 1990 to moderately concentrated in 2000. The HHI of refining markets also increased from 699 to 980 in the Midwest and from 534 to 704 in the Gulf Coast during the same period, although these markets remained unconcentrated.
- In wholesale gasoline markets, market concentration increased broadly throughout the United States between 1994 and 2002. Specifically, we found that 46 states and the District of Columbia had moderately or highly concentrated markets by 2002, compared to 27 in 1994.

In both the refining and wholesale markets of the downstream segment, merger activity and market concentration were highly correlated for most regions of the country.

Evidence from various sources indicates that, in addition to increasing market concentration, mergers also contributed to changes in other aspects of market structure in the U.S. petroleum industry that affect competition—specifically, vertical integration and barriers to entry. However, we could not quantify the extent of these changes because of a lack of relevant data.

Vertical integration can conceptually have both pro- and anticompetitive effects. Based on anecdotal evidence and economic analyses by some

industry experts, we determined that a number of mergers that have occurred since the 1990s have led to greater vertical integration in the U.S. petroleum industry, especially in the refining and marketing segment. For example, we identified eight mergers that occurred between 1995 and 2001 that might have enhanced the degree of vertical integration, particularly in the downstream segment.

Concerning barriers to entry, our interviews with petroleum industry officials and experts provide evidence that mergers had some impact on the U.S. petroleum industry. Barriers to entry could have implications for market competition because companies that operate in concentrated industries with high barriers to entry are more likely to possess market power. Industry officials pointed out that large capital requirements and environmental regulations constitute barriers for potential new entrants into the U.S. refining business. For example, the officials indicated that a typical refinery could cost billions of dollars to build and that it may be difficult to obtain the necessary permits from the relevant state or local authorities. At the wholesale and retail marketing levels, industry officials pointed out that mergers might have exacerbated barriers to entry in some markets. For example, the officials noted that mergers have contributed to a situation where pipelines and terminals are owned by fewer, mostly integrated companies that sometimes deny access to third-party users, especially when supply is tight—which creates a disincentive for potential new entrants into such wholesale markets.

U.S. Gasoline Marketing Has Changed in Two Major Ways

According to some petroleum industry officials that we interviewed, gasoline marketing in the United States has changed in two major ways since the 1990s. First, the availability of unbranded gasoline has decreased, partly due to mergers. Officials noted that unbranded gasoline is generally priced lower than branded. They generally attributed the decreased availability of unbranded gasoline to one or more of the following factors:

- There are now fewer independent refiners, who typically supply mostly unbranded gasoline. These refiners have been acquired by branded companies, have grown large enough to be considered a brand, or have simply closed down.
- Partially or fully vertically integrated oil companies have sold or mothballed some refineries. As a result, some of these companies now have only enough refinery capacity to supply their own branded needs, with little or no excess to sell as unbranded.

- Major branded refiners are managing their inventory more efficiently, ensuring that they produce only enough gasoline to meet their current branded needs.

We could not quantify the extent of the decrease in the unbranded gasoline supply because the data required for such analyses do not exist.

The second change identified by these officials is that refiners now prefer dealing with large distributors and retailers because they present a lower credit risk and because it is more efficient to sell a larger volume through fewer entities. Refiners manifest this preference by setting minimum volume requirements for gasoline purchases. These requirements have motivated further consolidation in the distributor and retail sectors, including the rise of hypermarkets.

Mergers and Increased Market Concentration Generally Led to Higher U.S. Wholesale Gasoline Prices

Our econometric modeling shows that the mergers we examined mostly led to higher wholesale gasoline prices in the second half of the 1990s. The majority of the eight specific mergers we examined—Ultramar Diamond Shamrock (UDS)-Total, Tosco-Unocal, Marathon-Ashland, Shell-Texaco I (Equilon), Shell-Texaco II (Motiva), BP-Amoco, Exxon-Mobil, and Marathon Ashland Petroleum (MAP)-UDS—resulted in higher prices of wholesale gasoline in the cities where the merging companies supplied gasoline before they merged. The effects of some of the mergers were inconclusive, especially for boutique fuels sold in the East Coast and Gulf Coast regions and in California.

- For the seven mergers that we modeled for conventional gasoline, five led to increased prices, especially the MAP-UDS and Exxon-Mobil mergers, where the increases generally exceeded 2 cents per gallon, on average.
- For the four mergers that we modeled for reformulated gasoline, two—Exxon-Mobil and Marathon-Ashland—led to increased prices of about 1 cent per gallon, on average. In contrast, the Shell-Texaco II (Motiva) merger led to price decreases of less than one-half cent per gallon, on average, for branded gasoline only.
- For the two mergers—Tosco-Unocal and Shell-Texaco I (Equilon)—that we modeled for gasoline used in California, known as California Air Resources Board (CARB) gasoline, only the Tosco-Unocal merger led to price increases. The increases were for branded gasoline only and exceeded 6 cents per gallon, on average.

For market concentration, which captures the cumulative effects of mergers as well as other competitive factors, our econometric analysis shows that increased market concentration resulted in higher wholesale gasoline prices.

- Prices for conventional (non-boutique) gasoline, the dominant type of gasoline sold nationwide from 1994 through 2000, increased by less than one-half cent per gallon, on average, for branded and unbranded gasoline. The increases were larger in the West than in the East—the increases were between one-half cent and one cent per gallon in the West, and about one-quarter cent in the East (for branded gasoline only), on average.

- Price increases for boutique fuels sold in some parts of the East Coast and Gulf Coast regions and in California were larger compared to the increases for conventional gasoline. The wholesale prices increased by an average of about 1 cent per gallon for boutique fuel sold in the East Coast and Gulf Coast regions between 1995 and 2000, and by an average of over 7 cents per gallon in California between 1996 and 2000.

Our analysis shows that wholesale gasoline prices were also affected by other factors included in the econometric models—particularly, gasoline inventories relative to demand, refinery capacity utilization rates, and the supply disruptions that occurred in some parts of the Midwest and the West Coast. In particular, wholesale gasoline prices were about 1 cent per gallon higher, on average, when gasoline inventories were low relative to demand, typically in the summer driving months. Also, prices were higher by about an average of one-tenth to two-tenths of 1 cent per gallon when refinery capacity utilization rates increased by 1 percent. The prices of conventional gasoline were about 4 to 5 cents per gallon higher, on average, during the Midwest and West Coast supply disruptions. The increase in prices for CARB gasoline was about 4 to 7 cents per gallon, on average, during the West Coast supply disruptions.

Mr. Chairman, this concludes my prepared statement. I would be happy to respond to any questions that you or other Members of the Subcommittee may have.

GAO Contact and Staff Acknowledgments

For further information about this testimony, please contact me at (202) 512-3841. Key contributors to this testimony included Godwin Agbara, Scott Farrow, John A. Karikari, and Cynthia Norris.

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Mr. OSE. I thank the gentleman.

I am pleased to recognize the General Counsel for the Federal Trade Commission, Mr. William Kovacic.

Sir, your statement, your written statement's been entered into the record. You're recognized for 5 minutes for the purpose of summarizing. I just want to clarify the record. You're on his left, not on his right.

Mr. KOVACIC. Mr. Chairman and members of the subcommittee, thank for the opportunity to present the FTC's testimony on the causes of and possible policy responses to gasoline price increases.

I will first describe FTC measures that insure that consumers pay competitive prices for gasoline, then discuss the GAO report, and then offer my views about the causes of gasoline prices. My written statement gives the views of the commission, and my spoken comments offer my views and not necessarily those of the commission.

Competition policy plays a key role in protecting the consumers of gasoline. FTC programs embrace this principle in four ways. First, the FTC does oppose mergers that promise to curb competition. Since 1981, the commission has challenged 15 petroleum mergers, causing four deals to be abandoned or blocked and requiring major divestitures in the other 11. Compared to other industries, FTC petroleum merger remedies have been uniquely stringent.

The FTC also prosecutes non-merger antitrust violations. For example, in March 2003, the FTC charged Unocal with violating the FTC Act by deceiving California State regulators in connection with proceedings to devise standards for reformulated gasoline. Earlier today, the commission announced that it unanimously has reversed the ruling of the administrative law judge who had dismissed the complaint at the end of last year.

A third FTC activity is to monitor industry conduct to spot possible antitrust violations. Since 2002, the FTC has used a statistical model to detect unusual gasoline price movements across the country. The FTC examines apparent anomalies and works with other Government agencies to pinpoint possible causes, including antitrust misconduct.

The fourth FTC activity is to inform the public and policymakers about petroleum competition issues. Later this year, the agency will issue a report on the factors that affect fuel price increases and will update FTC reports on petroleum mergers issued in the 1980's.

The FTC's petroleum experience builds heavily on merger review. In May, the GAO report, as Jim Wells has just described, examined mergers and concentration arising from transactions in 1990's. Among other tasks, the GAO studied eight mergers completed between 1997 and 2000 and found that six deals caused gasoline wholesale prices to rise, while two caused prices to fall.

The GAO report contains fundamental methodological errors that deny its results, in our view, reliability. Three crucial flaws stand out. First, GAO's econometric analyses did not properly account for many factors that affect gasoline prices. Second, GAO's study of how concentration affects prices did not use properly defined relevant markets required for sound analysis. Third, the GAO failed

to consider critical factors about individual transactions that are vital to assess price effects.

The FTC welcomes the rigorous analysis of past enforcement decisions. In the spirit of Jim Wells' comments, we invite the GAO to join the FTC in cohosting a conference to consider the GAO report's findings. To inform these proceedings, we call upon GAO to fully disclose its econometric methodology and all data used to run its models. Participants at the conference would include GAO and FTC experts, the agencies' advisors and interested observers.

Let me turn to what the FTC has learned about factors that cause gasoline prices to rise. The paramount factor, as we have heard this morning, is the price of crude oil. Changes in crude oil prices account for about 85 percent of the variability of U.S. gasoline prices. When crude oil prices rise, so do gasoline prices.

A second factor is the high level of utilization in the refining and transportation sector. For example, pipeline capacity is stretched in some regions, although expansion projects are underway to boost capacity. The same could be said for inventory levels.

Another major factor, as we have heard this morning, is the design of environmental quality standards. Pollution control unmistakably yields great social benefits but also raises refining costs. The multiplicity of environmentally mandated brands sometimes can reduce the flexibility of the supply sector. ther Government policies also raise gasoline prices at the State and Federal level.

To understand and publicize developments in the petroleum industry and to attack antitrust misconduct is a priority second to none for the FTC. I welcome your questions.

[The prepared statement of Mr. Kovacic follows:]

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

Prepared Statement of the Federal Trade Commission

Market Forces, Anticompetitive Activity, and Gasoline Prices:
FTC Initiatives to Protect Competitive Markets

Presented by William E. Kovacic
General Counsel

Before The
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs
Committee on Government Reform
United States House of Representatives

July 7, 2004

I. Introduction

Mr. Chairman and members of the Subcommittee, I am Bill Kovacic, General Counsel of the Federal Trade Commission. I am pleased to appear before you to present the Commission's testimony on the two important questions posed by the Subcommittee for this hearing: what factors have contributed to recent gasoline price increases in the United States, and what steps might serve to decrease gasoline prices over the short term and long term?[1]

The petroleum industry plays a crucial role in our economy. Not only do changes in gasoline prices affect consumers directly, but the price and availability of gasoline also influence many other economic sectors. No other industry's performance is more visibly or deeply felt.

The FTC's petroleum industry activities today reflect the sector's importance. The Commission fully exercises every tool at its disposal – including the prosecution of cases, the preparation of studies, and advocacy before other government bodies – to protect consumers from anticompetitive conduct and from unfair or deceptive acts or practices. In doing so, the FTC has built an unequaled base of competition and consumer protection experience and expertise in matters affecting the production and distribution of gasoline.

The Commission's testimony today addresses the Subcommittee's inquiries in two parts. It first reviews the basic tools that the Commission uses to promote competition in the petroleum industry: challenges to potentially anticompetitive mergers, prosecution of nonmerger antitrust violations, monitoring industry behavior to detect anticompetitive conduct, and research to understand petroleum sector developments. This segment of the testimony highlights what we

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[1]This written statement represents the views of the Federal Trade Commission. My oral presentation and responses to questions are my own and do not necessarily represent the views of the Commission or any individual Commissioner.

believe to be some of the flaws of a recent General Accounting Office report analyzing the effects of various petroleum industry mergers completed from 1997 through 2000. The review of the Commission's petroleum industry agenda highlights how the FTC is contributing to efforts to maintain and promote competition in the industry.

The second part of this testimony reviews learning the Commission has derived from its review of recent gasoline price changes. Among other findings, this discussion highlights the paramount role that crude oil prices play in determining both the level and movement of gasoline prices in the United States. Changes in crude oil prices account for approximately 85 percent of the variability of gasoline prices.[2] When crude oil prices rise, so do gasoline prices. Crude oil prices are determined by supply and demand conditions worldwide, most notably by production levels set by members of the Organization of Petroleum Exporting Countries ("OPEC"). As Figure 1 illustrates, changes in gasoline prices historically have tracked changes in the price of

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[2] A simple regression of the monthly average national price of gasoline on the monthly average price of West Texas Intermediate crude oil shows that the variation in the price of crude oil explains approximately 85 percent of the variation in the price of gasoline. Data for the period January 1984 to October 2003 were used. This is similar to the range of effects given in United States Department of Energy/Energy Information Administration, *Price Changes in the Gasoline Market: Are Midwestern Gasoline Prices Downward Sticky?*, DOE/EIA-0626 (Feb. 1999). More complex regression analysis and more disaggregated data may give somewhat different estimates, but the latter estimates are likely to be of the same general magnitude.

This percentage may vary across states or regions. *See* Prepared Statement of Justine Hastings before the Committee on the Judiciary, Subcommittee on Antitrust, Competition Policy and Consumer Rights, U.S. Senate, *Crude Oil: The Source of Higher Gas Prices* (Apr. 7, 2004). Dr. Hastings found a range of approximately 70 percent for California and 91 percent for South Carolina. South Carolina uses only conventional gasoline and is supplied largely by major product pipelines that pass through the state on their way north from the large refinery centers on the Gulf. California, with its unique fuel specifications and its relative isolation from refinery centers in other parts of the United States, historically has been more susceptible to supply disruptions that can cause major gasoline price changes, independent of crude oil price changes.

crude oil.[3] With crude oil prices at approximately $37 per barrel, it is not surprising that we are seeing higher gasoline prices nationwide.[4]

As a whole, the Commission's testimony develops two themes. First, the Commission places a premium on careful research, industry monitoring, and investigations to understand current petroleum industry developments and to identify accurately obstacles to competition, whether arising from private behavior or from public policies. The petroleum industry's performance is shaped by the interaction of extraordinarily complex, fast-changing commercial arrangements and an elaborate set of public regulatory commands. A well-informed understanding of these factors is essential if FTC actions are to benefit consumers.

Second, the Commission is, and will continue to be, vigilant in challenging anticompetitive mergers and nonmerger antitrust violations in the petroleum industry and in urging other government bodies to adopt procompetitive policies for this sector. We will not hesitate to suggest to Congress how the existing framework of laws might be improved to facilitate Commission intervention that will improve consumer well-being. This testimony, at Section III, identifies various laws and regulations that increase the cost of producing gasoline

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[3]Figure 1 (covering the period 1949 through 2002) also illustrates that the real price of gasoline has fallen dramatically since its historic high in the early 1980s. The difference between the price of crude oil (per gallon of gasoline) and the price of a gallon of gasoline has remained fairly constant for the same time period, generally around $.80 per gallon. (All figures are in 2002 dollars.) This is dramatically lower than the difference for the years preceding 1980.

[4]Crude oil prices have fallen from a high of approximately $42 per barrel (May 24 and June 1) to the current level of approximately $37 per barrel (June 25); this is a drop of approximately 12 cents per gallon. The price of gasoline has dropped from a national average of $2.054 per gallon (May 27) to $1.933 per gallon (June 25) as well. *See* Energy Information Administration ("EIA"), *Weekly Petroleum Status Report*; national average retail price of gasoline obtained from Oil Price Information Service.

and the price of gasoline.

II. FTC Activities to Maintain and Promote Competition in the Petroleum Industry

A. Merger Enforcement in the Petroleum Industry

The Commission has gained much of its antitrust enforcement experience in the petroleum industry by analyzing proposed mergers and challenging transactions that likely would reduce competition, result in higher prices, or otherwise injure the economy.[5] Since 1981, the Commission has taken enforcement action against 15 major petroleum mergers.[6] Four of the mergers were either abandoned or blocked as a result of Commission or court action. In the other 11 cases, the Commission required the merging companies to divest substantial assets in the markets where competitive harm was likely to occur.[7]

In all 15 cases, the agency sought to maintain the pre-merger levels of concentration in the relevant markets in which there was found to be a sufficient likelihood that the merger would have an anticompetitive effect. The Commission recently released data on all horizontal merger investigations and enforcement actions from 1996 to 2003. These data show that the Commission has brought more merger cases at lower levels of concentration in the petroleum industry than in other industries. Unlike in other industries, the Commission has obtained merger

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[5]Section 7 of the Clayton Act prohibits acquisitions where the anticompetitive effects may occur in "any line of commerce in any section of the country." 15 U.S.C. § 18.

[6]Figure 2 provides detailed information on all 15 of these Commission merger enforcement actions.

[7]In a number of other instances, the parties to a merger abandoned their transaction after the FTC opened an investigation into the transaction, but before formal Commission action.

relief in moderately concentrated petroleum markets.[8]

1. Recent FTC Merger Investigations

Three recent merger investigations illustrate the FTC's approach to merger analysis in the petroleum industry. The first is the merger of Chevron and Texaco,[9] which combined assets located throughout the United States. Following an investigation in which 12 states participated, the Commission issued a consent order against the merging parties requiring numerous divestitures to maintain competition in particular relevant markets, primarily in the western and southern United States. Among other requirements, the consent order compelled Texaco to: (a) divest to Shell and/or Saudi Refining, Inc. all of its interests in two joint ventures – Equilon[10] and Motiva[11] – through which Texaco had been competing with Chevron in gasoline marketing in the western and southern United States; (b) divest the refining, bulk supply, and marketing of gasoline satisfying California's environmental quality standards; (c) divest the refining and bulk supply of gasoline and jet fuel in the Pacific Northwest; and (d) divest the pipeline transportation of crude oil from the San Joaquin Valley of California.

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[8]Federal Trade Commission Horizontal Merger Investigation Data, Fiscal Years 1996-2003 (Feb. 2, 2004), Table 3.1, et seq.; FTC Horizontal Merger Investigations Post Merger HHI and Change in HHI for Oil Markets, FY 1996 through FY 2003 (May 27, 2004), *available at* http://www.ftc.gov/opa/2004/05/040527petrolactionsHHIdeltachart.pdf.

[9]*Chevron Corp.*, Docket No. C-4023 (Dec. 18, 2001) (Consent Order).

[10]Shell and Texaco jointly controlled the Equilon venture, whose major assets included full or partial ownership in four refineries, about 65 terminals, and various pipelines. Equilon marketed gasoline through approximately 9,700 branded gas stations nationwide.

[11]Motiva, jointly controlled by Texaco, Shell, and Saudi Refining, consisted of their eastern and Gulf Coast refining and marketing businesses. Its major assets included full or partial ownership in four refineries and about 50 terminals, with the companies' products marketed through about 14,000 branded gas stations nationwide.

A second important oil merger that the Commission recently challenged was the $6 billion merger between Valero Energy Corp. ("Valero") and Ultramar Diamond Shamrock Corp. ("Ultramar").[12] Both Valero and Ultramar were leading refiners and marketers of gasoline that met the specifications of the California Air Resources Board ("CARB gasoline") and were the only significant suppliers to independent stations in California. The Commission's complaint alleged competitive concerns in both the refining and bulk supply of CARB gasoline in California, and the Commission contended that the merger could raise the cost to California consumers by at least $150 million annually for every one-cent-per-gallon price increase at retail.[13] To remedy the Commission's competitive concerns, the consent order settling the case required Valero to divest: (a) an Ultramar refinery in Avon, California; (b) all bulk gasoline supply contracts associated with that refinery; and (c) 70 Ultramar retail stations in Northern California.

As a third example, the Commission challenged the merger of Phillips Petroleum Company and Conoco Inc., alleging that the transaction would harm competition in the Midwest and Rocky Mountain region of the United States. To resolve that challenge, the Commission required the divestiture of: (a) the Phillips refinery in Woods Cross, Utah, and all of the Phillips-related marketing assets served by that refinery; (b) Conoco's refinery in Commerce City, Colorado (near Denver), and all of the Phillips marketing assets in Eastern Colorado; and (c) the

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[12] *Valero Energy Corp.*, Docket No. C-4031 (Feb. 22, 2002) (Consent Order).

[13] The Commission also alleged competitive concerns in the refining and bulk supply of CARB gasoline for sale in Northern California, contending that a price increase of one cent per gallon would increase costs to consumers in that area by approximately $60 million per year.

Phillips light petroleum products terminal in Spokane, Washington.[14]

2. The GAO Report

In May of this year, the General Accounting Office ("GAO") released a report that sought to analyze how eight petroleum industry mergers or joint ventures carried out during the mid- to late 1990s affected gasoline prices.[15] The GAO reported that six of the eight transactions it examined caused gasoline prices to rise, while the other two transactions caused prices to fall.

The Commission reviewed a draft of the GAO report last summer.[16] Although GAO

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[14]*Conoco Inc. and Phillips Petroleum Corp.*, Docket No. C-4058 (Aug. 30, 2002) (Analysis of Proposed Consent Order to Aid Public Comment). Not all oil industry merger activity raises competitive concerns. For example, late last year, the Commission closed its investigation of Sunoco's acquisition of the Coastal Eagle Point refinery in the Philadelphia area without requiring relief. The Commission noted that the acquisition would have no anticompetitive effects and seemed likely to yield substantial efficiencies. *Sunoco Inc./Coastal Eagle Point Oil Co.*, FTC File No. 031-0139 (Dec. 29, 2003) (Statement of the Commission). The FTC also considered the likely competitive effects of Phillips Petroleum's proposed acquisition of Tosco. After careful scrutiny, the Commission by a 5-0 vote declined to challenge the acquisition. The FTC statement closing the investigation set forth its reasoning in detail. *Phillips Petroleum Corp.*, FTC File No. 001-0095 (Sept. 17, 2001) (Statement of the Commission).

Acquisitions of firms operating mainly in oil or natural gas exploration and production are unlikely to raise antitrust concerns, as that segment of the industry is generally unconcentrated. Acquisitions involving firms with de minimis market shares or production capacity or operations that do not overlap geographically are also unlikely to raise antitrust concerns. For example, the mere fact that a transaction involves a firm that meets the Energy Information Administration's financial reporting system threshold of "1% or more of the US reserves, production or refining capacity" or the *Oil and Gas Journal*'s listing of the 200 largest publicly traded oil and gas corporations does not imply that the transaction raises competitive concerns.

[15]U.S. General Accounting Office, *Energy Markets: Effects of Mergers and Market Concentration in the U.S. Petroleum Industry* (May 2004) (hereinafter "GAO report").

[16]*See* Timothy J. Muris, Chairman, Federal Trade Commission, Letter to James E. Wells, Director, Natural Resources and Environment, U.S. General Accounting Office (Aug. 25, 2003), *available at* http://www.ftc.gov/opa/2004/05/040527petrolactionsFTCresponse.pdf. The letter of August 25 was approved by a 5-0 vote of the Commission.

subsequently made some changes in its methodology, the basic criticisms we made of the draft report apply equally to the GAO's final report. The GAO report still contains major methodological mistakes that make its quantitative analyses wholly unreliable. It relies on critical factual assumptions that are both unstated and unjustified, and it presents conclusions that lack a quantitative foundation. Simply stated, the GAO report is fundamentally flawed.[17]

The Commission appends to today's testimony a detailed FTC staff analysis of the GAO report. That analysis highlights the GAO report's many flaws. Three particularly significant problems are noted here.[18] First, the GAO's models do not properly control for the numerous factors that cause gasoline prices to increase or decrease, and this failure to control for relevant variables significantly undermines any results of the GAO study. We cannot determine with precision the effects of this inadequate control on GAO's results, because GAO has refused to share with us the methodology and documentation (including data) to allow us to do so. Nevertheless, our Bureau of Economics has demonstrated that the GAO report did not account for several factors that affect gasoline prices, including changes in gasoline formulation and seasonal changes in demand. To the extent that these omitted variables are correlated with concentration or mergers or other variables, these omissions bias the GAO's estimates of the effects of concentration and mergers on wholesale gasoline prices.

A second problem is that any reliable price-concentration study must be based on one or more properly defined geographic markets. If a merger affects competition, it does so in the

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[17]The criticisms discussed here and in the detailed staff appendix have taken into account the explanations GAO has provided in response to the concerns the FTC had earlier raised.

[18]The Appendix explains in detail the additional analysis that our staff performed.

particular geographic market in which that competition occurs. Unless the affected geographic area is correctly delineated, the researcher cannot have confidence that his results have anything to do with measured changes in concentration. If the market is defined too broadly or too narrowly, the researcher cannot accurately represent that any change in prices may have been caused by the change in measured concentration.

Through decades of experience, the Commission has developed substantial expertise in defining relevant geographic markets in which to measure concentration and competitive effects. Neither the draft GAO report nor the final report measures concentration in *any* properly defined geographic market. This problem is sufficient to deny the GAO report any validity in assessing the effect of concentration on prices.

Third, the GAO report fails to consider critical facts about the individual mergers it studied – omissions that render its results particularly suspect. For example, the relatively large and statistically significant price increases that the GAO report associates with the Exxon/Mobil merger appear implausible on their face, when considered in conjunction with the extensive restructuring effectuated by the Commission's consent order. Among other remedial measures, as a condition for allowing the transaction to proceed, the FTC required large-scale divestitures of Exxon and Mobil assets (including 1,740 retail outlets in the Northeast and Mid-Atlantic states, pipeline interests, terminals, jobber supply contracts, and brand rights) in the regions in which the GAO identified merger-related price increases. The divestitures essentially eliminated the competitive overlap between Exxon and Mobil in gasoline marketing in New England and the mid-Atlantic states south to Virginia (all in PADD I) and also eliminated marketing overlaps in parts of Texas (PADD III). Particularly with respect to branded prices, therefore, we strongly

suspect that the merger cannot explain the GAO report's finding of higher wholesale prices following the Exxon/Mobil merger.

Despite these and other criticisms, we applaud the goal of the GAO inquiry – to evaluate the consequences of past decisions of the federal antitrust agencies. The Commission regards evaluations of past enforcement decisions as valuable elements of responsible antitrust policymaking. We welcome sound research to test our theoretical assumptions and analytical techniques. In the past the Commission has sponsored retrospective assessments of its work and has published the results, favorable and unflattering alike, because we believe such inquiries can improve our future competition policy programs. Over the past decade, we have sought the views of outsiders about how to strengthen this dimension of policymaking,[19] and we have increased our attention to retrospectives as a result.[20]

B. Nonmerger Investigations into Gasoline Pricing

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[19]The value of *ex post* evaluations was an important theme of the hearings convened by the FTC in the mid-1990s on innovation and globalization. *See* William E. Kovacic, *Evaluating Antitrust Experiments: Using Ex Post Assessments of Government Enforcement Decisions to Inform Competition Policy*, 9 GEO. MASON L. REV. 843, 855 & n. 50 (2001). The benefits of increased efforts to analyze enforcement outcomes were emphasized in a roundtable of prominent industrial organization economists hosted by the FTC in 2001. *See* Federal Trade Commission, Empirical Industrial Organization Roundtable (Sept. 11, 2001), *available at* http://www.ftc.gov/be/empiricalioroundtabletranscript.pdf.

[20] *See e.g.*, Federal Trade Commission, Fulfilling the Original Vision: The FTC at 90, at 29 (Apr. 2004) (describing FTC retrospective studies of hospital mergers and petroleum mergers), *available at* http://www.ftc.gov/os/2004/04/040402abafinal.pdf; Harold Saltzman, Roy Levy & John C. Hilke, Transformation and Continuity: The U.S. Carbonated Soft Drink Bottling Industry and Antitrust Policy Since 1980 (Bureau of Economics Staff Report, Federal Trade Commission, Nov. 1999) (discussing impact of FTC merger enforcement involving soft drink bottlers), *available at* http://www.ftc.gov/reports/softdrink/softdrink.pdf; Staff of the Bureau of Competition of the Federal Trade Commission, A Study of the Commission's Divestiture Process (1999) (examining implementation of selected FTC merger consent orders), *available at* http://www.ftc.gov/os/1999/9908/divestiture.pdf.

In addition to scrutinizing mergers, the Commission aggressively polices anticompetitive nonmerger activity. When it appears that higher prices might result from collusive activity or from anticompetitive unilateral activity by a firm with market power, the agency investigates to determine whether unfair methods of competition have been used. If the facts warrant it, the Commission challenges the anticompetitive behavior, usually by issuing an administrative complaint.

Several recent petroleum investigations deserve discussion. On March 4, 2003, the Commission issued an administrative complaint, stating that it had reason to believe that the Union Oil Company of California ("Unocal") had violated Section 5 of the FTC Act. The Commission alleged that Unocal deceived the California Air Resources Board in connection with regulatory proceedings to develop the reformulated gasoline ("RFG") standards that CARB adopted. Unocal allegedly misrepresented that certain technology was non-proprietary and in the public domain, while at the same time it pursued patents that would enable it to charge substantial royalties if CARB mandated Unocal's technology in the refining of CARB-compliant summer RFG. As a result of Unocal's activities, the Commission alleged, Unocal illegally acquired monopoly power in the technology market for producing the new CARB-compliant summer RFG. The Commission also alleged that Unocal undermined competition and harmed consumers in the downstream product market for CARB-compliant summer RFG in California.

The Commission's complaint further charged that these activities, unless enjoined, could cost California's consumers hundreds of millions of dollars per year. The complaint cited testimony of Unocal's expert, who estimated that 90 percent of any royalty paid to Unocal for its technology would be passed on to drivers in the form of higher gasoline prices. This case was

dismissed by an Administrative Law Judge, and is currently on appeal before the Commission.[21]

Another major nonmerger investigation occurred during 1998-2001, when the FTC conducted a substantial investigation of the major oil refiners' marketing and distribution practices in Arizona, California, Nevada, Oregon, and Washington (the "Western States" investigation). The agency initiated the Western States investigation out of concern that differences in gasoline prices in Los Angeles, San Francisco, and San Diego might be due partly to anticompetitive activities. The Commission's staff examined over 300 boxes of documents, conducted 100 interviews, held over 30 investigational hearings, and analyzed a substantial amount of pricing data. The investigation uncovered no basis to allege an antitrust violation. Specifically, the investigation detected no evidence of a horizontal agreement on price or output or the adoption of any illegal vertical distribution practice at any level of supply. The investigation also found no evidence that any refiner had the unilateral ability to raise prices profitably in any market or reduce output at the wholesale level. Accordingly, the Commission closed the investigation in May 2001.[22]

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[21]The Administrative Law Judge concluded that the *Noerr-Pennington* doctrine protected much of the conduct alleged to constitute unfair methods of competition, and that the FTC lacked jurisdiction over the remaining allegations because they depended on resolution of substantial questions of patent law.

[22]FTC Press Release, *FTC Closes Western States Gasoline Investigation* (May 7, 2001), *available at* http://www.ftc.gov/opa/2001/05/westerngas.htm. In part, this investigation focused on "zone pricing" and "redlining." *See Statement of Commissioners Sheila F. Anthony, Orson Swindle and Thomas B. Leary, available at* http://www.ftc.gov/os/2001/05/wsgpiswindle.htm, and *Statement of Commissioner Mozelle W. Thompson, available at* http://www.ftc.gov/os/2001/05/wsgpithompson.htm, for a more detailed discussion of these practices and the Commission's findings. *See also* Cary A. Deck & Bart J. Wilson, *Experimental Gasoline Markets*, Federal Trade Commission, Bureau of Economics Working Paper (Aug. 2003), *available at* http://www.ftc.gov/be/workpapers/wp263.pdf, and David W. Meyer & Jeffrey H. Fischer, *The Economics of Price Zones and Territorial Restrictions in Gasoline*

In performing these and other inquiries, the Commission distinguishes between short-term and long-term effects. While a refinery outage on the West Coast could significantly affect prices, the FTC did not find that it would be profitable in the long run for a refiner to restrict its output to raise the level of prices in the market. For example, absent planned maintenance or unplanned outages, refineries on the West Coast (and in the rest of the country) generally run at close to or full capacity. If gasoline is in short supply in a locality due to refinery or pipeline outages, and there are no immediate alternatives, a market participant may find that it can profitably increase prices by reducing its refinery output – generally for a short time only until the outage is fixed or alternative supply becomes available. This transient power over price – which occurs infrequently and lasts only as long as the shortage – should not be confused with the sustained power over price that is the hallmark of market power in antitrust law."

In addition to the Unocal and the West Coast pricing investigations, the Commission in 2001 issued a report on its nine-month investigation into the causes of gasoline price spikes in local markets in the Midwest in the spring and early summer of 2000.[23] The Commission found that a variety of factors contributed in different degrees to the price spikes. Primary factors included refinery production problems (*e.g.*, refinery breakdowns and unexpected difficulties in producing the new summer-grade RFG gasoline required for use in Chicago and Milwaukee),

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Marketing, Federal Trade Commission, Bureau of Economics Working Paper (Mar. 2004), *available at* http://www.ftc.gov/be/workpapers/wp271.pdf.

[23]Midwest Gasoline Price Investigation, Final Report of the Federal Trade Commission (Mar. 29, 2001), *available at* http://www.ftc.gov/os/2001/03/mwgasrpt.htm; *see also* Remarks of Jeremy Bulow, Director, Bureau of Economics, *The Midwest Gasoline Investigation*, *available at* http://www.ftc.gov/speeches/other/midwestgas.htm.

pipeline disruptions, and low inventories. Secondary factors included high crude oil prices that contributed to low inventory levels, the unavailability of substitutes for certain environmentally required gasoline formulations, increased demand for gasoline in the Midwest, and, in certain states, *ad valorem* taxes. Importantly, the industry responded quickly to the price spike. Within three or four weeks, an increased supply of product had been delivered to the Midwest areas suffering from the supply disruption. By mid-July 2000, prices had receded to pre-spike or even lower levels.

The Commission's merger investigations also are relevant to the detection of nonmerger antitrust violations. FTC merger investigations since the mid-1990s uniformly have been major undertakings that have reviewed all pertinent facets of the relevant petroleum markets. These investigations have involved the review of thousands of boxes of documents in discovery, examination of witnesses under oath, and exhaustive questioning of outside experts. During these investigations, Commission staff have not only analyzed traditional merger issues but have also looked for evidence of potential anticompetitive effects related to unilateral market power, collusion, and ongoing illegal conduct.

The discussion above covers but a few of the gasoline pricing investigations to which the Commission has devoted substantial time and resources. To date, we have identified no instances of collusion among petroleum companies or of illegal unilateral firm conduct. Of course, that does not mean that anticompetitive acts cannot occur, which is why the agency continues to be vigilant in pursuing its enforcement mission.

C. Recent Commission Research on Factors That Can Affect Prices of Refined Petroleum Products

Prices of any commodity may fluctuate dramatically for reasons unrelated to antitrust violations. A sudden surge in demand or an unexpected problem in the supply chain can cause prices to spike quickly. A change in the price of a necessary input, such as crude oil, also can affect the price of the final good dramatically.

Such price changes are disruptive to both consumers and businesses but are not by themselves evidence of anticompetitive activity. They can occur in some regional gasoline markets because of a unique combination of short-run supply and demand conditions. The amount of gasoline that can be supplied to a particular region may be inflexible in the short run because of various limitations on refining and transportation capabilities or product requirements unique to that region. The demand for gasoline is inelastic.[24] Therefore, in the short run, changes in price do not heavily influence the amount of gasoline purchased by consumers. Under these conditions, when a sudden supply shortage jolts the market, perhaps due to a refinery fire or a pipeline rupture, the normal consequence of even a relatively small shortage of supply is a sharp increase in price until the supply of the product desired can be increased.

1. Gasoline Monitoring and Investigation Initiative

The Commission actively monitors wholesale and retail prices of gasoline. Two years ago, the FTC launched an initiative to monitor gasoline prices to identify "unusual" movements

[24]Individual firms may have little or no market power even if industry demand is inelastic. It is a mistake to equate low demand elasticity with the ability of a firm to exercise market power. Elasticity is a measure of the percentage change in one variable (*e.g.*, quantity demanded) brought about by a one percent change in some other variable (*e.g.*, price). *See* WALTER NICHOLSON, MICROECONOMIC THEORY: BASIC PRINCIPLES AND EXTENSIONS 187-209 (4th ed. 1989).

in prices[25] and then examine whether any such movements might result from anticompetitive conduct that violates Section 5 of the FTC Act. FTC economists developed a statistical model for identifying such movements. The agency's economists scrutinize price movements in 20 wholesale and over 350 retail markets across the country. A map of these markets is attached at Figure 3.

Our gasoline monitoring and investigation initiative focuses on the timely identification of unusual movements in gasoline prices (compared to historical trends) to determine if a law enforcement investigation is warranted. If the FTC staff detects unusual price movements in an area, it researches the possible causes, including, if appropriate, consulting with the state Attorneys General, state energy agencies, and the Department of Energy's ("DOE") Energy Information Administration. The FTC staff also monitors DOE's gasoline price "hotline" complaints. If the staff concludes that the unusual price movement likely results from a "natural" cause (*i.e.*, a cause unrelated to anticompetitive conduct), it does not investigate further.[26] The Commission's experience from its past investigations and the current monitoring initiative indicates that unusual movements in gasoline prices typically have a natural cause. FTC staff further investigates unusual price movements that do not appear to be explained by "natural" causes to determine whether anticompetitive conduct may be a cause. Cooperation with state law enforcement officials is an important element of such investigations.

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[25]An "unusual" price movement in a given area is a price that is significantly out of line with the historical relationship between the price of gasoline in that area and the gasoline prices prevailing in other areas.

[26]Natural causes include movements in crude oil prices, supply outages (*e.g.*, from refinery fires or pipeline disruptions), or changes in and/or transitions to new fuel requirements imposed by air quality standards.

Regional price spikes for gasoline have occurred in various parts of the country, and many areas have experienced substantial price increases for gasoline in recent months. As noted above, the FTC is monitoring wholesale and retail gasoline prices in cities throughout the country and will continue to analyze these data to seek explanations for pricing anomalies. A look at some recent price spikes illustrates the kinds of factors, other than crude oil prices, that affect retail price levels.

a. ARIZONA

In August 2003, gasoline prices rose sharply in Arizona. The average price of a gallon of regular gasoline in Phoenix rose from $1.52 during the first week in August to a peak of $2.11 in late August. Several sources caused these price movements. Most gasoline sold in Phoenix comes from West Coast refineries. A pipeline from Texas also brings gasoline to the Phoenix area, but it usually operates at capacity. The marginal supply comes from the West Coast.[27]

Product supplies on the West Coast were already becoming tight in early August, following a number of unplanned refinery interruptions in California and an unplanned shutdown at a refinery in Washington. This placed upward pressure on prices on the West Coast and in Arizona. On July 30, 2003, Kinder Morgan's El Paso-to-Phoenix pipeline ruptured between Tucson and Phoenix. On August 8, Kinder Morgan shut down the pipeline, after its efforts to repair the rupture failed. This disruption immediately reduced the volume of gasoline delivered to Phoenix by 30 percent, and most of Arizona immediately became much more dependent on shipments from California for its gasoline supplies.

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[27]Marginal supply is the last product brought into a market and effectively sets the equilibrium price. It is also the increment of product that can adjust in the short run to market conditions and thus ameliorate price spikes.

Retail prices in Phoenix increased during the week immediately following the August 8 pipeline shutdown (the week ending August 16) to levels higher than predicted by historical relationships.[28] As California refineries increased supply shipments to Arizona (displacing refining capacity that could otherwise serve California markets), retail prices in Los Angeles increased above the predicted level during the week ending August 23. On August 24, Kinder Morgan opened a temporary by-pass of the pipeline section affected by the rupture, and prices quickly fell. The average price of regular gasoline began to drop immediately. By the end of August, gasoline prices in the Phoenix area were falling. They continued to drop through September and October.[29] (See Figure 4.)

Marked price increases in the wake of a sudden, severe drop in supply are a normal market reaction. Because gasoline is so important to consumers, a large price increase may be required to reduce quantity demanded so that it is equal to available supply. Price increases in turn attract additional supplies, which should then cause prices to decline. This response occurred in the Kinder Morgan rupture.

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[28]Price increases in Phoenix were not large enough to equate short-run supply and demand. Gasoline was effectively rationed by queuing – long lines of motorists – and many stations ran out of gasoline. *See Phoenix Gas Crisis Worsens*, MSNBC News (Aug. 21, 2003) (only 45 percent of retail stations had product to sell), *available at* http://www.msnbc.com/local/AZSTAR/A1061452904.asp?0cv=BB10; *Phoenix Gas Stations Running Dry After Pipeline Shut Down*, Associated Press (Aug. 18, 2003), *available at* http://www.cnn.com/2003/US/Southwest/08/18/phoenix.gas.crunch.ap/.

[29]In examining this pricing anomaly, the FTC staff consulted with the Attorney General offices in Arizona and California.

b. ATLANTA

Another recent price anomaly picked up by the monitoring project occurred in Atlanta, Georgia, and surrounding counties. This anomaly is not the traditional price spike that attracts the public's attention. Instead, it took the form of a small, sustained increase. Atlanta and its surrounding counties have experienced gasoline formulation changes in the past few years that have differentiated it from the rest of the Southeast. On April 1, 2003, an interim low-sulfur standard of 90 parts per million ("ppm") took effect. Soon thereafter, Georgia required the 45-county area surrounding Atlanta to introduce a new 30 ppm low-sulfur gasoline by September 16. These formulation changes increased the cost of producing gasoline. After the 90 ppm standard was implemented, gasoline prices in Atlanta increased.

After the 90 ppm standard was instituted in April, and even more frequently after the 30 ppm standard was instituted in September, the Commission's monitoring project picked up small anomalies in Atlanta gasoline pricing. Atlanta and the surrounding area have experienced slightly higher prices relative to historical levels because of the greater costs of making low-sulfur gasoline. This increase is illustrated at Figure 5.

c. MID-ATLANTIC AREA

A third pricing anomaly occurred in September and October of last year. Gasoline prices were generally falling nationwide at that time. The price of reformulated gasoline in the New York, New Jersey, Connecticut, and Philadelphia areas, however, declined more slowly than the price of gasoline in the rest of the country. The FTC monitoring model showed the price of gasoline in this region was unusually high even though prices were decreasing elsewhere. (See Figure 6.)

The FTC staff's examination of this anomaly, which included consultation with each affected state's Attorney General, ultimately concluded that the elevated price in this area stemmed from a number of factors. In late August 2003, the Northeast was hit particularly hard by an increase in demand that drew down gasoline stocks in all regions of the United States.[30] The August 14 blackout further affected the Northeast, temporarily shutting down seven refineries. While the blackout appeared to have little immediate impact on U.S. retail gasoline prices, the reduction in supply from four refineries in Ontario, Canada, whose operations were hampered by the power outage, significantly affected the price of gasoline in Ontario. Typically, the Northeastern states receive significant gasoline imports from Canada. Throughout much of August, however, wholesale prices in Toronto exceeded wholesale prices in Buffalo by approximately 25 cents per gallon, a sign that Canada was shipping less product into the Northeast. FTC staff confirmed a sizeable drop in exports of gasoline from Canada to the Northeast in August 2003.[31] By the end of September, rack prices in Toronto and Buffalo had returned to rough equality, and imports from Canada returned to their usual level.

On top of the low inventories, both the switch from summer to winter grade gasoline and the switch in New York and Connecticut from MTBE-blended[32] reformulated gasoline to ethanol RFG caused a disincentive to build inventories in August and September. While refineries in the Northeast increased production during this period, important additional supply to this area comes

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[30]DOE, *Inquiry into August 2003 Gasoline Price Spike*, at 35-42 (Nov. 2003).

[31]FTC staff compiled the import data from tariff and trade data from the U.S. Department of Commerce, the U.S. Department of the Treasury, and the U.S. International Trade Commission.

[32]"MTBE" is Methyl Tertiary-Butyl Ether.

by pipeline from the Gulf and imports from abroad. Both of these sources of supply require significant response times, however. Given the shipping lags and the impending switches in formulation, there was limited time – as well as a disincentive – to ship additional summer specification RFG to the Northeast.

WESTERN STATES

FTC staff identified a pricing anomaly involving the Western United States during February and March 2004. Figures 7 through 10 show the actual and predicted bounds of the price of retail gasoline in Las Vegas and Reno, Nevada, and Los Angeles and San Francisco, California. Figures 11 and 12 show the actual and predicted range of the wholesale price of gasoline in Los Angeles and San Francisco, respectively.[33]

As shown on the graphs, the wholesale (rack) price of gasoline in California increased beginning in mid-February. By the third week in February, the wholesale prices were outside the predicted bounds. The retail prices in Nevada and California followed a similar path, but the daily data showed a more lagged response. As part of the monitoring and investigation initiative, FTC staff discussed the anomalies with the California Energy Commission, DOE's Energy Information Administration, the California Attorney General's Office and the Nevada Attorney General's Office. The FTC also examined additional sources of data.

FTC staff found that a number of factors caused the price spike. Unanticipated refinery outages took place at a time when there were also relatively low levels of inventory. Some outages resulted when maintenance lasted longer than expected, while one outage resulted from

[33]Information for the wholesale price of gasoline is provided because Nevada receives its gasoline by pipeline from both Los Angeles and San Francisco.

a power failure. January through March is the normal time for refinery maintenance, when firms are preparing for the summer gasoline season. California refineries operate at near capacity most of the year but perform maintenance during the winter, during the downturn in demand.[34]

Examining the gasoline inventory and production levels in California, as well as the prices in California relative to the Gulf Coast, illuminates the relevant sequence of events. Figure 13 shows (a) weekly gasoline production at the California refineries as a percentage of the previous year's gasoline production, (b) gasoline and blending stock inventories as a percentage of the previous year's inventories, (c) the Los Angeles and Houston rack (price) differential as a percentage, and (d) the average Los Angeles to Houston rack (price) differential as a percentage.[35]

Figure 13 shows that in the first few weeks of January, gasoline production in California was 10 to 20 percent higher than in January 2003, leading to higher inventories.[36] As production dropped in late January because of scheduled maintenance, inventories were drawn down. During January the rack price of gasoline in Los Angeles was below the normal Houston-Los Angeles differential, indicating lower relative prices in Los Angeles than in Houston, due to this

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[34] Testimony of Pat Perez, California Energy Commission, before the California Attorney General's Task Force on Gasoline Prices (Mar.11, 2004), *available at* http://www.energy.ca.gov/papers/2004-03-11_PAT_PEREZ.PDF.

[35]Houston is a major refining area. The price comparison is between the current price difference between Los Angeles and Houston and the historical difference. When the price differential between Los Angeles and Houston increases above the historical difference, it is important to research the cause of the deviation.

[36]It is not unusual for annual "week to week" comparisons to show such differences. Data on weekly refinery production and output are available from the California Energy Commission, Weekly Fuels Watch Report Database, *available at* http://www.energy.ca.gov/database/fore/index.html.

increased production. As inventories dropped in early February, the rack price in Los Angeles began to increase, relative to Houston. In mid-February, the Tesoro refinery in San Francisco had a power outage that shut the refinery for a week,[37] and Valero announced that restarting a refinery that had been undergoing maintenance would take an extra week. There were additional refinery outages as well.[38] The combined effect of the decreased production and lower-than-expected inventories was that the Los Angeles rack price rose substantially relative to Houston, and Los Angeles retail prices also rose beyond what would be expected at a time of dramatically increasing crude oil prices. As the refineries were brought back online, the relative wholesale price of gasoline in California fell, and retail prices moved more in line with prices nationwide (a relative decrease, compared to the rest of the country).

Restarting a refinery is a lengthy process that can take a week or more, and the loss of output from a refinery outage can be sizeable. Refiners have contractual obligations to supply branded stations, and a refinery with a major outage may have to purchase gasoline from its competitors at the current price. During the incident discussed above, three of the California refineries that experienced difficulties in restarting were forced to make unplanned purchases totaling a million barrels of gasoline on the spot market.[39]

2. Conferences and Staff Reports Identifying Factors Affecting the Price of Gasoline

Because of increased public concern about the level and volatility of gasoline prices, the

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[37]OIL & GAS JOURNAL (Mar.1, 2004).

[38]Testimony of Pat Perez, *supra* note 34; *see also* California Energy Commission, Questions & Answers: California Gasoline Price Increases, *available at* http://www.energy.ca.gov/gasoline/gasoline_q-and-a.html.

[39]California Energy Commission, *supra* note 38.

Commission constantly studies factors that can affect refined petroleum product prices. The Commission held public conferences in 2001 and 2002[40] that made important contributions to our knowledge about the factors that affect gasoline prices. The Commission is preparing a report on the proceedings of these conferences and related work.

The Commission also is updating its 1982 and 1989 petroleum merger reports to focus on mergers and structural change in the oil industry since 1985. In March, Commission staff economists released a retrospective study of the effects of the Marathon-Ashland joint venture in Kentucky.[41] This paper examines the price effects of the Marathon-Ashland joint venture by comparing the wholesale and retail prices of gasoline in a number of regions unaffected by the merger to prices of gasoline in Louisville, Kentucky. The transaction does not seem to have affected the relative price of gasoline in Louisville.

III. Factors Affecting Gasoline Prices

Through its merger and nonmerger enforcement activity, and through its conferences, studies, and advocacy work, the FTC has examined in detail the central factors that may affect the level and volatility of refined petroleum product prices. Below we review just a few of those factors.

The most important factor affecting both the level and movement of gasoline prices in the

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[40]FTC Press Release, *FTC to Hold Second Public Conference on the U.S. Oil and Gasoline Industry in May 2002* (Dec. 21, 2001), *available at* http://www.ftc.gov/opa/2001/12/gasconf.htm.

[41]Christopher T. Taylor & Daniel S. Hosken, *The Economic Effects of the Marathon-Ashland Joint Venture: The Importance of Industry Supply Shocks and Vertical Market Structure*, Federal Trade Commission, Bureau of Economics Working Paper (Mar. 2004), *available at* http://www.ftc.gov/be/workpapers/wp270.pdf.

United States is the price of crude oil.[42] Changes in crude oil prices account for approximately 85 percent of the variability of gasoline prices.[43] When crude oil prices rise, gasoline prices rise. (See Figure 1.) Crude oil prices are determined by supply and demand conditions worldwide, most notably by production levels set by OPEC countries.[44] Other factors that affect the supply of and demand for crude oil, such as the fast-growing demand for petroleum in China, also influence the price of gasoline in the United States.

Inventories of both crude oil and refined products also have an important effect on retail

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[42]While the impact of crude oil prices on gasoline prices is widely recognized, it is often alleged that gasoline prices are "sticky downward" – that is, gas prices go up like "rockets" and come down like "feathers"in response to changes in oil prices. For a review of the empirical literature testing this hypothesis, see John Gewecke, *Issues in the "Rockets and Feathers" Gasoline Price Literature*, submitted in conjunction with the Federal Trade Commission Conference, *Factors That Affect the Price of Refined Petroleum Products II* (May 8, 2002), *available at* http://www.ftc.gov/bc/gasconf/comments2/gewecke2.pdf. This paper indicates there are serious and sometimes fundamental flaws with the papers showing asymmetric response.

[43]*See* note 2, *supra*.

[44]OPEC members today account for 40 percent of world crude oil production and 80 percent of world crude oil reserves. As a substantive matter, competitor cartels that limit supply or fix prices are illegal under U.S. antitrust laws. However, the U.S. antitrust agencies must account for considerations beyond the substantive merits of a case before bringing such a lawsuit. *See* Federal Trade Commission, Prepared Statement, *Competitive Problems in the Oil Industry*, Before the Committee on the Judiciary, United States House of Representatives (Mar. 29, 2000).

The share of world crude oil production accounted for by U.S.-based companies declined from 10.8 percent in 1990 to 8.5 percent in 2003; the share of these firms is similarly low for world crude oil reserves. Recent large mergers among major oil companies have had little impact on concentration in world crude oil production and reserves. For example, Exxon and Mobil, which merged in 1999, had worldwide shares of crude oil production in 1998 of 2.1 percent and 1.3 percent, respectively; in 2001, the combined firm's share was 3.4 percent. The BP/Amoco merger combined firms with world crude oil reserves of 0.7 percent and 0.2 percent in 1997; the combined firm's world crude oil reserve share in 2001, which reflects the acquisition of ARCO in 2000 and the divestiture of ARCO's Alaska North Slope crude oil to Phillips, was 0.8 percent.

gasoline prices. At our August 2001 conference,[45] a representative of the Energy Information Administration reported that "OPEC [production] cuts and high crude prices affect gasoline prices directly through the feedstock cost but also indirectly by reducing gasoline inventories."[46] Participants also commented that average inventories for refined products have declined over time,[47] contributing to price spikes as additional supply is less available quickly to meet demand. Lower inventory costs decrease the average cost of producing gasoline, to the benefit of consumers.[48]

Participants in the FTC conference also noted that refineries and the pipelines used to transport gasoline to the pump are typically highly utilized. The annual average domestic refinery atmospheric distillation capacity utilization rate reached record levels in 1997 (95.2

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[45]Transcripts of the conference and papers submitted to the *Federal Trade Commission Public Conference: Factors that Affect Prices of Refined Petroleum Products*, are available at http://www.ftc.gov/bc/gasconf/index.htm. The dates of the conferences were August 2, 2001, and May 8 and May 9, 2002.

[46]John Cook (EIA), Aug. 2 tr. at 52.

[47]Thomas Greene (California Attorney General Office), Aug. 2. tr. at 11 ("[i]n the 1990's, reserves and inventories [in California] have declined roughly 20-plus percent"); Rothschild (Podesta/Mattoon), Aug. 2 tr. at 82 (consistently below an average of 5 days of gasoline inventory); Mark Cooper (Cons. Fed. of Am.), written statement at 21.

[48]In a recent study of the petroleum inventory system, the National Petroleum Council concluded that the trend toward lower product inventories was "the result of improved operating efficiencies partially offset by operational requirements for an increased number of product formulations to comply with environmental regulations," noting also that "[s]ince holding inventory is a cost, there is an underlying continuous pressure to eliminate that which is not needed to meet customer demand or cannot return a profit to the holder." National Petroleum Council, *U.S. Petroleum Product Supply–Inventory Dynamics*, at 11 (Dec. 1998). The National Petroleum Council study also concluded that "[c]ompetition has resulted in the consumer realizing essentially all of the cost reductions achieved in the downstream petroleum industry." *Id.* at 22.

percent) and 1998 (95.6 percent) after rising fairly steadily since the early 1980s.[49] In more recent years, annual average distillation capacity utilization has eased somewhat, falling to 92.5 percent for 2003. However, refinery distillation capacity utilization for the four-week period ending June 18, 2004 (the most recent period for which data are available) was 95.7 percent.[50]

Although it is efficient to run these capital-intensive facilities at high rates of capacity utilization, supply disruptions from unexpected refinery outages or pipeline failures may not be easily or immediately compensated for by other supply sources due to capacity limitations, resulting in substantial market price effects in some cases.

Total refinery distillation capacity has been increasing in recent years, however. Total distillation capacity was 15.43 million barrels per day ("MMBD") in 1995.[51] As of June 2004, industry distillation capacity was 16.89 MMBD.[52] While no new U.S. refineries were built during this period, the increase of over 1.4 MMBD of industry capacity at existing facilities represents a 9.5 percent increase since 1995. This is equivalent to adding more than 12 average-sized refineries to industry supply.[53] Over time, there has been a noticeable shift toward running larger refineries.[54] While some refineries have closed since 1995, these mainly were small, older

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[49] EIA, *Annual Energy Review 2002*, Table 5.9.

[50] EIA, *Weekly Petroleum Status Report*, June 23, 2004, Table 2. Annual capacity utilization for 2003 is based on average of reported monthly capacity utilization rates.

[51] EIA, *Annual Energy Review 2002*, Table 5.9.

[52] EIA, *Weekly Petroleum Status Report*, June 23, 2004, Table 2.

[53] The average size of a refinery in 2003 was 112.5 thousand barrels per day ("MBD"). The average size of a refinery in 1995 was 88.2 MBD.

[54] *See* Figure 14, Size Distribution of Operating Refineries 1986 and 2003.

refineries with limited gasoline production capacity.[55] Despite these closures, refining capacity in each PADD has increased since 1995.[56]

Pipeline capacity also is stretched in some regions of the country for at least parts of the year, although various pipeline expansion projects now underway may relieve some pressure. In addition to capacity increases and upgrades at the refinery level, there have been increases in product pipeline capacities in recent years.[57]

Conference participants indicated that the interaction of environmental quality requirements and gasoline supplies may also affect gasoline prices. It is clear that environmental regulations have yielded substantial air quality benefits. Since 1970, emissions of the six principal air pollutants – nitrogen dioxide, ozone, sulfur dioxide, particulate matter, carbon monoxide, and lead – have been cut by 25 percent, even as vehicle miles increased by 149 percent.[58] These regulations add to the cost of refining crude oil, and thus to gasoline prices.

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[55]*See* Figure 15, Refinery Closures, 1995 to 2003, showing crude oil distillation capacity of closed refineries.

[56]*See* EIA, *Petroleum Supply Annual 1996* (Table 36); EIA, *Weekly Petroleum Status Report,* Table 2, U.S. Petroleum Activity, January 2003 to present.

[57]For example, the FTC examined bulk product supply conditions affecting the Midwest in its investigation of price spikes affecting that area in the spring of 2000. Since that time product pipeline capacity from the Gulf to the Midwest has increased significantly. The Centennial pipeline, with a capacity of 210 MBD, opened in 2002. *See* Marathon Oil Company, *Marathon Ashland Petroleum, LLC, available at* http://www.marathon.com/Our_Business/Marathon_Ashland_Petroleum_LLC/. Explorer, another major pipeline bringing refined products from the Gulf to the Midwest, added 110 MBD of capacity in an expansion project that was completed in 2003. *See* Willbros Group Inc., *Explorer Mainline Expansion, available at* http://www.willbros.com/pdf/0277.pdf.

[58]Environmental Protection Agency, *Air Quality and Emissions Trends Report* (2002).

The Environmental Protection Agency estimates that the cost of producing a gallon of reformulated gasoline is 4 to 8 cents per gallon more than the cost of producing conventional gasoline.[59] These costs may be even higher during supply disruptions, when significant marginal costs are incurred as firms attempt quickly to alter previously determined production runs.

In addition, several participants at the FTC conferences reported that the proliferation of different environmentally mandated gasoline blends has reduced the ability of firms to ship gasoline from one region to another in response to supply disruptions.[60] (Figure 16 illustrates the different fuel blends required in the United States.[61]) The FTC staff's analysis of pricing anomalies, discussed earlier, provides support for these concerns. As part of its work to improve public understanding of the possible role of environmentally mandated fuels in contributing to price volatility and price spikes, Commission staff provided comments to the EPA in connection with that agency's preparation of the EPA Staff White Paper, a response to

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[59]Robert Larson (EPA), May 8 tr. at 74.

[60]*E.g.*, John Felmy (American Petroleum Institute), Aug. 2 tr. at 26; Benjamin Cooper (Ass'n of Oil Pipe Lines), Aug. 2 tr. at 102. According to one participant, "[t]ight specifications for reformulated gasoline sold in [California] and limited pipeline interconnections . . . isolate the California gasoline market from gasoline markets in the rest of the country," thus contributing to higher prices in the state. Richard Gilbert (U. Cal. Berkeley), written statement at 3-4.

[61]A number of different fuel blend requirements have been introduced since passage of the Clean Air Act of 1990. For example, regulations governing fuel blends in California have been introduced and implemented in 1992, 1996 and 2003 (CARB I, II, and III.). Additionally, RFG Phase 1 (1995) and RFG Phase 2 (2000) affect various other states. Tier 2 low-sulfur gasoline regulations are being phased in now. Additionally, various regional specifications have been phased in over the last decade.

the President's National Energy Report (May 2001). The President's Report directed the EPA Administrator to "study opportunities to maintain or improve the environmental benefits of state and local 'boutique' fuels programs, while exploring ways to increase the flexibility of the fuels distribution infrastructure, improve fungibility, and provide added gasoline market liquidity."[62] The FTC staff commented that the EPA might find it beneficial to use a framework similar to the one the FTC uses to analyze mergers, to determine the competitive effects likely to result from changes in fuel mandates in particular relevant markets.[63] The FTC staff offered suggestions to the EPA concerning how it might perform such an analysis.

Other federal and state laws and regulations were identified by conference participants as affecting gasoline prices. For example, a federal statute known as the Jones Act[64] increases the cost of transporting petroleum products by requiring that any product transported by vessel between U.S. ports be carried in domestically-built ships staffed by U.S. crews, which is more expensive than carriage by foreign-built, foreign-staffed ships. A recent government estimate of the total welfare cost of the Jones Act for all tanker shipping is $656 million per year, based on

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[62]*Study of Unique Gasoline Fuel Blends ("Boutique Fuels"), Effects on Fuel Supply and Distribution and Potential Improvements*, EPA Staff White Paper at 1-2.

[63]The FTC's experience shows that economically relevant gasoline markets are regional for refining and transportation, and local for gasoline distribution or retail sales. For example, a refinery that does not – or cannot in the short run – produce the type of gasoline currently in short supply in a certain region cannot be considered to be in that market for purposes of resolving short-run price spikes. FTC Staff Comments, Study of Unique Gasoline Fuel Blends ("Boutique Fuels"), Effects on Fuel Supply and Distribution and Potential Improvements, Dkt. No. A-2001-20, Before the Environmental Protection Agency at 4 (Jan. 30, 2002).

[64]Sec. 27 of the Merchant Marine Act of 1920, as amended, 46 App. U.S.C. §883; *see also* 19 C.F.R. §§4.80, 4.80b.

the assumption that a foreign ship has operating costs of only 59 percent of a Jones Act ship.[65] The observed cost of transportation of refined petroleum products from the Gulf Coast to the West Coast, 10-25 cents per gallon,[66] implies that the Jones Act imposes an additional cost of at least 4 cents per gallon when it is necessary to transport gasoline using Jones Act ships.

A number of states have also adopted statutes or regulations that substantially influence gasoline prices. Several states have divorcement statutes that require the unbundling of retail sales from upstream refining operations. Careful economic analyses of divorcement statutes have concluded that such statutes can increase consumer prices.[67] Other regulatory statutes that appear to have increased gasoline prices include bans on self-service sales[68] and restrictions on below-cost sales,[69] which appear simply to protect retailers from competition from more efficient

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[65]The Economic Effects of Significant U.S. Import Restraints, U.S. International Trade Commission, Pub. No. 3519 (June 2002).

[66]California Energy Commission, Gulf Coast to California Pipeline Feasibility Study (Aug. 2003).

[67]*See* Michael G. Vita, *Regulatory Restrictions on Vertical Integration and Control: The Competitive Impact of Gasoline Divorcement Policies*, 18 J. REG. ECON. 217 (2000) (finding that retail gasoline prices are two to three cents per gallon higher in states with divorcement laws); Asher A. Blass & Dennis W. Carlton, *The Choice of Organizational Form in Gasoline Retailing and the Cost of Laws that Limit that Choice*, 44 J. L. & ECON. 511 (2001) (estimating that divorcement increases costs of operation by about three to four cents per gallon) .

[68] *See* Vita, *supra* note 67 (noting that in 1993 – at that time the last year for which data were available – the price of regular unleaded gasoline in those states that banned self-service was three cents per gallon higher than in states that allowed self-service); *see also* R. Johnson & C. Romeo, *The Impact of Self-Service Bans in the Retail Gasoline Market*, 82 REV. ECON & STAT. 625 (2000) (finding the cost of self-service bans to be three to five cents per gallon).

[69]The Minnesota Department of Commerce recently ordered Kwik Trip, Inc., and Murphy Oil USA Inc. to "cease and desist" from selling gasoline at too low a price. The allegation in both cases was that the respondent had "engaged in the offer and sale of gasoline below the minimum allowable price." Minnesota Department of Commerce, *Enforcement Actions May*

competitors.[70] The FTC staff has provided numerous comments on specific sales-below-cost legislation, noting that (a) economic studies, legal studies, and court decisions indicate that below-cost pricing that leads to monopoly or anticompetitive harm occurs infrequently; (b) below-cost sales of motor fuel that lead to monopoly or anticompetitive harm are especially unlikely; and (c) alleged instances of anticompetitive below-cost sales are best addressed by federal statutes against anticompetitive conduct to avoid chilling procompetitive and pro-consumer conduct.[71]

2004, available at http://www.state.mn.us/mn/externalDocs/Commerce/Enforcement_Actions_May_2004_050704120541_EnfAct053104.htm; *see also* Mark Brunswick, *Selling Gas For Too Little Can Be Costly; State Regulations Are Penalizing Some Retailers Who Don't Charge Enough For Fuel*, MINNEAPOLIS STAR-TRIBUNE, at 1B (June 2, 2004).

[70]*See, e.g.*, Star Fuels Mart, LLC v. Sam's East, Inc., 2004 U.S. App. LEXIS 5215, at *17 n.3 (10th Cir. Mar. 19, 2004) (despite no evidence of harm to competition under a Sherman Act standard, upholding temporary injunction granted under the Oklahoma Unfair Sales Act forbidding defendant from selling fuel below cost because "[t]he purpose of the OUSA, . . . is simply to prevent loss leader selling and to protect small businesses").

Hypermarkets are transforming gasoline retailing. Hypermarkets, which are high-volume retail outlets mostly owned by or leased from grocery stores, mass merchandise retailers, large convenience stores, or membership clubs, have substantial economies of scale that enable them to sell at low prices. They may pump up to one million gallons of fuel a month. Some hypermarkets can reduce their costs further by doing their own wholesaling, and some already buy their gasoline directly from refineries through long-term contracts. As of the fourth quarter of 2002, the national market share for hypermarkets was approximately six percent. *See* Energy Analysts International, Evolution of the High Volume Gasoline Retailer (Feb. 13, 2003).

[71]*See* Letter from Susan Creighton, Director, FTC Bureau of Competition, et al., to Michigan State Representative Gene DeRossett (June 17, 2004), *available at* http://www.ftc.gov/os/2004/06/040618staffcommentsmichiganpetrol.pdf; Letter from Susan Creighton, Director, FTC Bureau of Competition, et al., to Kansas State Sen. Les Donovan (Mar. 12, 2004), *available at* http://www.ftc.gov/be/v040009.pdf; Letter from Susan Creighton, Director, FTC Bureau of Competition, et al., to Demetrius Newton, Speaker Pro Tempore of the Alabama House of Representatives (Mar. 12, 2004), *available at* http://www.ftc.gov/be/v040005.htm; Letter from Susan Creighton, Director, FTC Bureau of

IV. Conclusion

Competition policy helps ensure that the petroleum industry is, and remains, competitive. The FTC has expended substantial effort and resources to enforce the antitrust laws and to scrutinize behavior in this industry. We will continue to do so in the future. Higher prices for petroleum products deeply affect the quality of life in the United States and strongly influence the Nation's economic performance. Understanding and publicizing developments in this sector, and attacking conduct that violates the antitrust laws, are competition policy priorities second to none for the Federal Trade Commission.

I would be pleased to answer your questions.

Competition, et al., to Wisconsin State Rep. Shirley Krug (Oct. 15, 2003), *available at* http://www.ftc.gov/be/v030015.htm; Letter from Joseph J. Simons, Director, FTC Bureau of Competition, et al., to Eliot Spitzer, Attorney General of New York (July 24, 2003), *available at* http://www.ftc.gov/be/nymfmpa.pdf; Letter from Joseph J. Simons, Director, FTC Bureau of Competition, et al., to Roy Cooper, Attorney General of North Carolina (May 19, 2003), *available at* http://www.ftc.gov/os/2003/05/ncclattorneygeneralcooper.pdf; *Competition and the Effects of Price Controls in Hawaii's Gasoline Market: Before the State of Hawaii, J. Hearing House Comm. On Energy and Environmental Protection et al.* (Jan. 28, 2003) (testimony of Jerry Ellig, Deputy Director, FTC Office of Policy Planning), *available at* http://www.ftc.gov/be/v030005.htm; Letter from Joseph J. Simons, Director, FTC Bureau of Competition, et al., to Gov. George E. Pataki of New York (Aug. 8, 2002), *available at* http://www.ftc.gov/be/v020019.pdf; Letter from Joseph J. Simons, Director, FTC Bureau of Competition, and R. Ted Cruz to Hon. Robert F. McDonnell, Commonwealth of Virginia House of Delegates (Feb. 15, 2002), *available at* http://www.ftc.gov/be/V020011.htm.

Figure 1

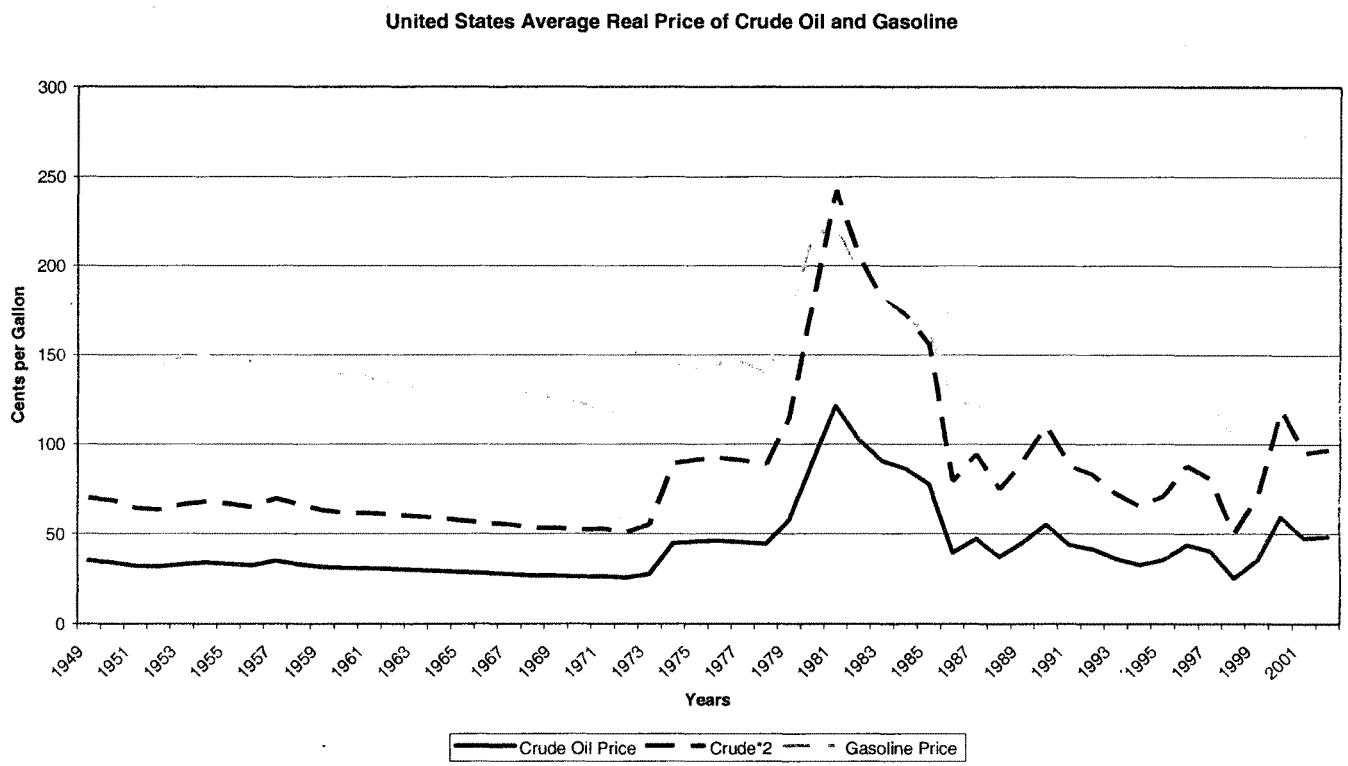
United States Average Real Price of Crude Oil and Gasoline
Cents per Gallon
300
250
200
150
100
50
0
1949
1951
1953
1955
1957
1959
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
Years
Crude Oil Price
Crude*2
Gasoline Price

Figure 2
FTC Merger Enforcement Actions in the Petroleum Industry, 1981-2003

Firms (Year)*	Markets Affected	Theory of Anti-competitive Effects	Concentration (HHI)	FTC Enforcement Action
Mobil/ Marathon[1] (1981)	Wholesale marketing of gasoline and middle distillates in various markets in the Great Lakes area	Unilateral / Coordinated[2]	Not publicly available[3]	FTC sought preliminary injunction, but before hearings were held Mobil withdrew tender offer as a result of injunction in a separate, private litigation
Gulf/Cities Service[4] (1982)	1. Wholesale distribution of gasoline in various areas in the East and Southeast	Coordinated	Not publicly available	Gulf withdrew its tender offer after the FTC obtained a temporary restraining order prior to a preliminary injunction hearing
	2. Manufacture and sale of kerosene jet fuel in PADDs I and III and parts thereof	Coordinated	Not publicly available	As above
	3. Pipeline transportation of refined products into the Mid Atlantic and Northeast	Unilateral[5]	Not publicly available	As above
Texaco/Getty[6] (1984)	1. Refining of light products in the Northeast[7]	Unilateral	Not publicly available	Divestiture of Texaco refinery at Westville, NJ
	2. Pipeline transportation of light products into the Northeast	Unilateral / Coordinated[8]	Not publicly available	Texaco required to support all Colonial pipeline expansions for ten years
	3. Pipeline transportation of light products into Colorado	Unilateral / Coordinated[9]	Not publicly available	Divestiture of either Texaco pipeline interest or Getty refining interests
	4. Wholesale distribution of gasoline and middle distillates in various parts of the Northeast	Coordinated	Not publicly available	Divestiture of Getty marketing assets in the Northeast, and a Texaco terminal in Maryland
	5. Sale and transport of heavy crude oil in California	Unilateral[10]	Not publicly available	Texaco required to supply crude oil and crude pipeline access to former Getty customers under specified terms
Chevron/ Gulf[11] (1984)	1. Bulk supply of kerosene jet fuel in parts of PADDs I and III and the West Indies and Caribbean islands	Coordinated	Not publicly available	Divestiture of one of two specified Gulf refineries in Texas and Louisiana.

Figure 2 *(continued)*

Firms (Year)*	Markets Affected	Theory of Anti-competitive Effects	Concentration (HHI)	FTC Enforcement Action
	2. Transport of light products to the inland Southeast	Coordinated[12]	Not publicly available	Divestiture of Gulf's interest in the Colonial Pipeline
	3. Wholesale distribution of gasoline and middle distillates in numerous markets in West Virginia and the South	Coordinated	Not publicly available	Divestiture of all Gulf marketing assets in six states and parts of South Carolina
	4. Transport of crude oil from West Texas/New Mexico	Unilateral / Coordinated[13]	Not publicly available	Divestiture of Gulf interests in specified crude oil pipelines, including 51% of Gulf's interest in the West Texas Gulf Pipeline Company
Conoco/ Asamera[14] (1986)	1. Bulk supply (from refineries and pipelines) of gasoline and other light products to eastern Colorado	Unilateral[15] / Coordinated	Not publicly available	FTC voted to seek preliminary injunction; parties abandoned the transaction
	2. Purchasing of crude oil in the Denver-Julesberg Basin of northeastern Colorado	Unilateral	Not publicly available	As above
PRI/Shell[16] (1987)	1. Terminaling and marketing of light petroleum products on the individual island of Oahu, HI	Unilateral / Coordinated	Not publicly available	FTC won preliminary injunction in U.S. District Court; prior approval required for future acquisitions
	2. Terminaling and marketing of light petroleum products on the individual islands of Maui, Hawaii, and Kauai in the state of Hawaii (potential competition)	Unilateral / Coordinated	Not publicly available	As above
Sun/Atlantic[17] (1988)	Terminaling and marketing of light products in Williamsport, PA and Binghamton, NY	Coordinated	Not publicly available	Divestiture of terminal and associated owned retail outlets in each area
Shell/Texaco[18] (1997)	1a. Refining of gasoline for the Puget Sound area	Unilateral / Coordinated	Post-merger 3812 Change 1318	Divestiture of Shell refinery at Anacortes, WA; Shell jobbers and dealers given option to contract with purchaser
	1b. Refining of jet fuel for the Puget Sound area	Unilateral / Coordinated	Post-merger 5248 Change 481	As above

Figure 2 *(continued)*

Firms (Year)*	Markets Affected	Theory of Anti-competitive Effects	Concentration (HHI)	FTC Enforcement Action
	2a. Refining of gasoline for the Pacific Northwest	Unilateral / Coordinated	Post-merger 2896 Change 561	As above
	2b. Refining of jet fuel for the Pacific Northwest	Unilateral / Coordinated	Post-merger 2503 Change 258	As above
	3. Refining of "CARB" gasoline for California	Unilateral / Coordinated	Post-merger 1635 Change 154	As above
	4. Transportation of undiluted heavy crude oil to San Francisco Bay area for refining of asphalt	Unilateral[19]	Not applicable	Ten year extension of crude oil supply agreement.
	5. Pipeline transportation of refined light products to the inland Southeast U.S.	Coordinated[20]	Pre-merger >1800	Divestiture of either party's pipeline interest
	6. CARB gasoline marketing in San Diego County, California	Coordinated	Post-merger 1815 Change 250	Divestiture to a single entity of retail outlets with specified individual and combined volume
	7. Terminaling and marketing of gasoline and diesel fuel on the island of Oahu, Hawaii	Coordinated	Post-merger 2160 Change 267	Divestiture of either Shell's or Texaco's terminal and associated retail outlets
BP/ Amoco[21] (1998)	1. Terminaling of gasoline and other light products in nine separate metropolitan areas, mostly in the Southeast U.S.	Coordinated	Post-merger range >1500 - >3600 Change >100	Divestiture of a terminal in each geographic market
	2. Wholesale sale of gasoline in thirty cities or metropolitan areas in the Southeast U.S. and parts of Ohio and Pennsylvania	Coordinated	Post-merger range >1400->1800 Change >100	Divestiture of BP's or Amoco's owned retail outlets in eight geographic areas; in all 30 areas jobbers and open dealers given option to cancel without penalty
Exxon/ Mobil[22] (1999)	1. Gasoline marketing in at least 39 metro areas in the Northeast (Maine to New York) and Mid-Atlantic (New Jersey to Virginia) regions of the U.S.	Unilateral / Coordinated	Post-merger range from 1000-1800 Change >100 to Post-merger >1800 Change >50 (all inferred)	Divestiture of all Exxon (Mobil) owned outlets and assignment of agreements in the Northeast (Mid-Atlantic) region

Figure 2 *(continued)*

Firms (Year)*	Markets Affected	Theory of Anti-competitive Effects	Concentration (HHI)	FTC Enforcement Action
	2. Gasoline marketing in five metro areas of Texas	Unilateral / Coordinated	Post-merger range from 1000-1800 Change >100 to Post-merger >1800 Change >50 (all inferred)	Divestiture of Mobil's retail outlets and supply agreements
	3. Gasoline marketing in Arizona (potential competition)	Coordinated	Not applicable	Termination of Exxon's option to repurchase retail outlets previously sold to Tosco
	4. Refining and marketing of "CARB" gasoline in California	Unilateral / Coordinated	Post-merger 1699 Change 171 (measured by refining capacity)	Divestiture of Exxon's refinery at Benicia, CA, and all of Exxon's marketing assets in CA, including assignment to the refinery buyer of supply agreements for 275 outlets
	5. Refining of Navy jet fuel on the west coast	Unilateral / Coordinated	Post merger >1800 (inferred) Change >50 (inferred)	As above
	6. Terminaling of light products in Boston, MA and Washington, DC areas	Unilateral / Coordinated	Post merger >1800 (inferred) Change >50 (inferred)	Divestiture of a Mobil terminal in each area
	7. Terminaling of light products in Norfolk, VA area.	Unilateral / Coordinated	Post merger >1800 (inferred)	Continuation of competitor access to wharf
	8. Transportation of light products to the Inland Southeast	Coordinated[23]	Post-merger >1800 (inferred)	Divestiture of either party's pipeline interest
	9. Transportation of Crude Oil from the Alaska North Slope	Coordinated[24]	Post-merger >1800 (inferred) Change >50 (inferred)	Divestiture of Mobil's 3% interest in TAPS
	10. Terminaling and gasoline marketing assets on Guam	Unilateral / Coordinated	Post-merger 7400 Change 2800	Divestiture of Exxon's terminal and retail assets on the island

Figure 2 *(continued)*

Firms (Year)*	Markets Affected	Theory of Anti-competitive Effects	Concentration (HHI)	FTC Enforcement Action
	11. Paraffinic base oil refining and marketing in the U.S. and Canada	Unilateral / Coordinated	Post-merger range 1000 to 1800 (inferred) Change >100 (inferred)	Relinquishment of contractual control over Valero's base oil production; long term supply agreements at formula prices for volume of base oil equal to Mobil's U.S. production
	12. Refining and marketing of jet turbine oil worldwide	Unilateral[25]	Pre-merger >5625	Divestiture of Exxon jet turbine oil manufacturing facility at Bayway, NJ, with related patent licenses and intellectual property
BP/ARCO[26] (2000)	1. Production and sale of Alaska North Slope ("ANS") crude oil	Unilateral[27]	Post-merger >5476 Change 2640	FTC filed in federal District Court, then reached consent; divestiture of all of ARCO's Alaska assets[28]
	2. Bidding for ANS crude oil exploration rights in Alaska	Unilateral[29]	Post-merger >1800 (inferred) Change >50 (inferred)	As above
	3. Transportation of ANS crude oil on the Trans-Alaska Pipeline System	Unilateral / Coordinated[30]	Post-merger >5600 Change 2200	As above
	4. Future commercialization of ANS natural gas (potential competition)	Unilateral / Coordinated[31]	Not applicable	As above
	5. Crude oil transportation and storage services at Cushing, Oklahoma	Unilateral[32]	Post-merger >1849 for storage >2401 for pipelines >9025 for trading services Changes >50 (inferred)	Divestiture of all of ARCO's pipeline interests and storage assets related to Cushing
Chevron/ Texaco[33] (2001)	1. Gasoline marketing in numerous separate markets in 23 western and southern states	Coordinated	Post-merger range from 1000-1800 Change >100 to Post merger >1800 Change >50 (all inferred)	Divestiture (to Shell, the other owner of Equilon) of Texaco's interests in the Equilon and Motiva joint ventures (including Equilon's interests in the Explorer and Delta Pipelines)
	2. Marketing of CARB gasoline in California	Unilateral / Coordinated	Post-merger range >2000 Change >50	As above

Figure 2 *(continued)*

Firms (Year)*	Markets Affected	Theory of Anti-competitive Effects	Concentration (HHI)	FTC Enforcement Action
	3. Refining and bulk supply of CARB gasoline for California	Unilateral / Coordinated	Post-merger 2000 Change 500	As above
	4. Refining and bulk supply of gasoline and jet fuel in the Pacific Northwest	Coordinated	Post-merger > 2000 Change > 600	As above
	5. Refining and bulk supply of RFG II gasoline for the St. Louis metropolitan area	Coordinated[34]	Post-merger > 5000 Change > 1600	As above
	6. Terminaling of gasoline and other light products in various geographic markets in California, Arizona, Hawaii, Mississippi, and Texas	Unilateral / Coordinated	Post-merger range >2000 Change >300	As above
	7. Crude oil transportation via pipeline from California's San Joaquin Valley	Coordinated	Post-merger > 3300 Change >800	As above
	8. Crude oil transportation from the offshore Eastern Gulf of Mexico	Unilateral[35]	Post-merger >1800 (inferred) Change >50 (inferred)	As above
	9. Natural gas transportation from certain parts of the Central Gulf of Mexico offshore area	Unilateral / Coordinated[36]	Post-merger >1800 (inferred) Change >50 (inferred)	Divestiture of Texaco's 33% interest in the Discovery Gas Transmission System
	10. Fractionation of natural gas liquids at Mont Belvieu, Texas	Unilateral / Coordinated[37]	Not publicly available	Divestiture of Texaco's minority interest in the Enterprise fractionator
	11. Marketing of aviation fuels to general aviation in the Southeast U.S.	Unilateral / Coordinated	Post-merger > 1900 Change > 250	Divestiture of Texaco's general aviation business to an up-front buyer
	12. Marketing of aviation fuels to general aviation in the western U.S.	Unilateral / Coordinated	Post-merger > 3400 Change > 1600	As above
Valero/UDS [38] (2001)	1. Refining and Bulk Supply of CARB 2 gasoline for northern California	Unilateral / Coordinated	Post-merger > 2700 Change > 750	Divestiture of UDS's refinery at Avon, CA, bulk gasoline supply contracts, and 70 owned and operated retail outlets

Figure 2 *(continued)*

Firms (Year)*	Markets Affected	Theory of Anti-competitive Effects	Concentration (HHI)	FTC Enforcement Action
	2. Refining and Bulk Supply of CARB 3 gasoline for northern California	Unilateral / Coordinated	Post-merger > 3050 Change >1050	As above
	3. Refining and Bulk Supply of CARB 2 gasoline for state of California	Coordinated	Post-merger > 1750 Change > 325	As above
	4. Refining and Bulk Supply of CARB 3 gasoline for state of California	Coordinated	Post-merger >1850 Change > 390	As above
Phillips/ Conoco[39] (2002)	1. Bulk supply (via refining or pipeline) of light petroleum products in eastern Colorado	Coordinated	Post-merger > 2600 Change > 500	Divestiture of Conoco refinery in Denver and all of Phillips marketing assets in eastern Colorado
	2. Bulk supply of light petroleum products in northern Utah	Coordinated	Post-merger > 2100 Change > 300	Divestiture of Phillips refinery in Salt Lake City and all of Phillips marketing assets in northern Utah
	3. Terminaling services in the Spokane, Washington area	Unilateral / Coordinated	Post-merger 5000 Change > 1600	Divestiture of Phillips' terminal at Spokane
	4. Terminaling services for light products in the Wichita, Kansas area	Unilateral / Coordinated	Post-merger > 3600 Change > 750	Terminal throughput agreement with option to buy 50% undivided interest in Phillips terminal
	5. Bulk supply of propane in southern Missouri	Unilateral / Coordinated	Post-merger 3700 Change > 1200	Divestiture of Phillips' propane business at Jefferson City and E. St. Louis; contracts giving buyer nondiscriminatory access to market at Conway, KS
	6. Bulk supply of propane in St. Louis	Unilateral / Coordinated	Post-merger > 7700 Change > 1000	As above
	7. Bulk supply of propane in southern Illinois	Unilateral / Coordinated	Post-merger > 7700 Change > 1000	As above
	8. Natural gas gathering by pipeline in certain parts of western Texas and southeastern New Mexico (Permian Basin)	Unilateral[40]	Not publicly available	Divestiture of Conoco's gas gathering assets in each area

Figure 2 *(continued)*

Firms (Year)*	Markets Affected	Theory of Anti-competitive Effects	Concentration (HHI)	FTC Enforcement Action
	9. Fractionation of natural gas liquids at Mont Belvieu, Texas	Unilateral / Coordinated[41]	Not publicly available	Prohibitions on transfers of competitive information; voting requirements for capacity expansion
Shell/Pennzoil Quaker State[42] (2002)	Refining and marketing of paraffinic base oil in U.S. and Canada	Unilateral / Coordinated	Post-merger >2300 Change >700	Divestiture of Pennzoil interest in lube oil joint venture; Pennzoil sourcing of lube oil from third party lube oil refiner frozen at current level

Source: Compiled from FTC complaints, orders, and analyses to aid public comment.

Note:
*Figure 2 chronologically lists enforcement actions, beginning with the FTC's first challenge of a major petroleum merger in 1981. The year cited is the year in which the merger was proposed and most of the FTC activity occurred; in some cases, a consent order was not final until the following calendar year.
[1] Mobil/Marathon (1981), Memorandum of Points and Authorities in Support of the Federal Trade Commission's Complaint for Temporary Restraining Order and for Preliminary Injunction ("Mobil/Marathon Complaint Memorandum") 6, 26-27. 1982 Merger Report.

[2] While the theories of anticompetitive effects were not always clearly articulated in the earliest petroleum merger investigations, a careful reading of the complaint and accompanying materials suggests the type of effects the investigators had in mind. The classifications of theories for these early cases listed in Figure 2 are therefore based in part on the authors' interpretation of the complaints, court documents, and staff case memoranda. In the case of Mobil and Marathon, the merger would "enhance Mobil's market power" in the relevant markets by "doubling and tripling its share," (Mobil/Marathon Complaint Memorandum 26, 29) suggesting a likelihood of unilateral anticompetitive effects, and that it would increase concentration in already concentrated markets and remove a firm that had tended to act as a maverick, pricing aggressively and selling large volumes to independent retailers (Mobil/Marathon Complaint Memorandum 29-30) – pointing toward a theory of coordinated effects.

[3] The Complaint alleged that the firms' combined shares of wholesale gasoline sales exceeded 24.5% in eighteen SMSAs, reaching 44.0% in one city and 49.4% in another. While HHIs were not calculated at that time, the parties' contribution to HHI (that is, the sum of their squared shares) can be calculated from the market share data given (Mobil/Marathon Complaint Memorandum 27, Table 1). The parties' pre-merger contribution to HHI ranged between 500 and 1000 for ten of the eighteen SMSAs and exceeded 1000 for another three.

[4] Gulf/Cities Service (1982), Complaint for a Temporary Restraining Order and Preliminary Injunction Pursuant to Section 13(b) of the FTC Act ("Gulf/Cities Service Complaint"), ¶ 19-22. 1982 Merger Report.

[5] Gulf and Cities Service owned 16.78% and 13.98%, respectively, of Colonial Pipeline. Since the merged firm's share would exceed 25%, it would be able to unilaterally block future pipeline expansion under the pipeline's rules. Gulf/Cities Service Complaint ¶ 19.

[6] Texaco/Getty (1984), Complaint ¶ 15-59.

[7] At this time pipeline transport from the Gulf Coast was not considered to be in the relevant market for "the manufacture of refined light products." Texaco/Getty (1984), Complaint ¶ 19-21.

[8] Texaco owned 14.3% of Colonial Pipeline, "the dominant means of transporting additional refined light products into the Northeast region, supplying approximately 36.9 percent of total consumption . . . in 1982." Getty owned 100% of the Getty Eastern Products Pipeline. Texaco/Getty (1984), Complaint ¶ 33-35.

[9] Texaco owned 40% of the Wyco Pipeline, one of four pipelines delivering refined product to Colorado, while Getty owned 50% of the Chase Pipeline. Texaco/Getty (1984), Complaint ¶ 29-31.

[10] Both Texaco and Getty owned refineries and proprietary pipeline systems in the relevant market. While Texaco produced less heavy crude oil than it could refine, Getty produced more than it could refine on the West Coast. The Complaint alleged that the merger was "likely to increase Texaco's incentives and ability to deny non-integrated refiners heavy crude oil and access to proprietary pipelines." Texaco/Getty (1984), Complaint ¶ 50-57.

[11] Chevron/Gulf (1984), Complaint ¶ 15-41.

[12] Gulf owned the largest share, 16.78%, of Colonial Pipeline, while Chevron owned the second largest share, 27.13%, of Plantation Pipeline, Colonial's only direct competitor. Chevron/Gulf (1984), Complaint ¶ 25-26.

[13] Chevron owned a proprietary pipeline running from the West Texas/New Mexico producing area to El Paso, while Gulf owned the largest share of the West Texas Gulf Pipeline running from the producing area to the Gulf Coast and the MidValley Pipeline at Longview, TX. Chevron/Gulf (1984), Complaint ¶ 38-39.

[14] Conoco/Asamera (1986), Complaint that the Commission voted to pursue.

[15] The Preliminary Injunction Complaint in Conoco/Asamera alleged that the merger would create a dominant firm in the relevant markets. Conoco/Asamera (1986), Complaint that the Commission voted to pursue ¶ 15.

[16] PRI/Shell (1987), Complaint ¶ 6-12.

[17] Sun/Atlantic (1988), Complaint and Order.

[18] Shell/Texaco (1997), Complaint ¶ 10-37; Analysis of Proposed Consent Order to Aid Public Comment.

[19] The Texaco heated pipeline was the only pipeline supplying undiluted heavy crude oil to the San Francisco Bay area, where Shell and a competitor refined asphalt. Shell/Texaco (1997), Complaint ¶ 15.

[20] Shell owned 24% of Plantation Pipeline and Texaco owned 14% of Colonial Pipeline. Shell/Texaco (1997), Complaint ¶ 32.

[21] BP/Amoco (1998), Complaint ¶ 8-21; Analysis of Proposed Consent Order to Aid Public Comment.

[22] Exxon/Mobil (1999), Complaint ¶ 8-54; Analysis of Proposed Consent Order to Aid Public Comment.

[23] Exxon owned 49% of Plantation Pipeline and Mobil owned 11% of Colonial Pipeline. Exxon/Mobil (1999), Complaint ¶ 13.

[24] Exxon and Mobil owned 20% and 3%, respectively, of the Trans-Alaska Pipeline System (TAPS), the only means of transporting Alaskan North Slope (ANS) crude oil to the port facilities at Valdez, AK. Exxon/Mobil (1999), Complaint ¶ 14.

[25] Exxon and Mobil together accounted for 75% of worldwide sales, and 90% of worldwide sales to commercial airlines. Exxon/Mobil (1999), Analysis of Proposed Consent Order to Aid Public Comment.

[26] BP/ARCO (2000), Complaint ¶ 10-66; Analysis of Proposed Consent Order to Aid Public Comment.

[27] BP had a 44% share of ANS crude oil production at that time, while ARCO had a 30% share, implying that their contribution to the HHI was 2836. Their contribution to the post-merger HHI would have been 5476. BP/ARCO (2000), Analysis of Proposed Consent Order to Aid Public Comment.

[28] The ARCO Alaska assets divested included crude oil exploration and production assets, 22% interest in TAPS, and specialized tanker ships. BP/ARCO (2000), Analysis of Proposed Consent Order to Aid Public Comment.

[29] BP and ARCO together won 60% of the Alaska state lease auctions during the 1990s, while the top four bidders won 75%. BP/ARCO (2000), Analysis of Proposed Consent Order to Aid Public Comment.

[30] BP (50%) and ARCO (22%) both held interests in TAPS. Their contribution to the HHI would have been 2984 pre-merger and 5184 post-merger. There were five other owners of TAPS; Exxon held 20% (see note 24 *supra*), and the four others' shares are not publicly available; including Exxon and assigning the four other firms equal shares yields a lower bound for the HHI of 3400 pre-merger or of 5600 post-merger. BP/ARCO (2000), Analysis of Proposed Consent Order to Aid Public Comment.

[31] The FTC alleged that BP Amoco, ARCO, and Exxon Mobil were the only three companies that held "sufficiently large volumes of gas reserves to have the potential to develop those reserves for significant commercial use." BP/ARCO (2000), Analysis of Proposed Consent Order to Aid Public Comment.

[32] BP and ARCO together accounted for 43% of storage capacity, 49% of pipeline capacity, and 95% of trading services at Cushing. BP/ARCO (2000), Analysis of Proposed Consent Order to Aid Public Comment.

[33] Chevron/Texaco (2001), Complaint ¶ 12-57; Analysis of Proposed Consent Order to Aid Public Comment.

[34] Chevron held a 17% interest in Explorer Pipeline, and Texaco and Equilon (Texaco's joint venture with Shell) together held 36%. Explorer is the largest pipeline supplying bulk Phase II Reformulated Gasoline (RFG II) to St. Louis; at the time, Equilon also had a long-term contract that gave it control of much of the output of a local St. Louis area refinery. Chevron/Texaco (2001), Analysis of Proposed Consent Order to Aid Public Comment.

[35] Equilon owned 100% of Delta, and Chevron owned 50% of Cypress; these two pipelines were the only means of transporting crude from the Eastern Gulf of Mexico to on-shore terminals. Chevron/Texaco (2001), Analysis of Proposed Consent Order to Aid Public Comment.

[36] Texaco owned 33% of the Discovery Gas Transmission System; Chevron and its affiliate Dynegy together owned 77% of the Venice Gathering System, one of only two other pipeline systems for transporting natural gas from this area. Chevron/Texaco (2001), Analysis of Proposed Consent Order to Aid Public Comment.

[37] Chevron owned 26% of Dynegy, which held large interests in two of the four fractionators in the market, and had representation on Dynegy's Board of Directors; Texaco held a minority interest in a third. The merger might have led to the sharing of competitively sensitive information and might also have permitted the merged firm to exercise unilateral market power. Chevron/Texaco (2001), Analysis of Proposed Consent Order to Aid Public Comment.

[38] Valero/UDS (2001), Complaint ¶ 13-21; Analysis of Proposed Consent Order to Aid Public Comment.

[39] Phillips/Conoco (2002), Complaint ¶ 8-135; Analysis of Proposed Consent Order to Aid Public Comment.

[40] Phillips owned 30% of Duke Energy Field Services (DEFS); DEFS and Conoco were the only gatherers in the Permian Basin. Phillips/Conoco (2002), Complaint ¶ 69-71.

[41] Phillips owned 30% of DEFS, with representation on its Board of Directors; DEFS held an interest in two of the four fractionators in the market. Conoco partially owned and operated a third, Gulf Coast Fractionators. The merger would have given the combined firm veto power over significant expansion projects and might have led to the sharing of competitively sensitive information. Phillips/Conoco (2002), Complaint ¶ 76-79.

[42] Shell/Pennzoil-Quaker State (2002), Complaint, Analysis of Proposed Consent Order to Aid Public Comment.

Figure 3 - FTC Gasoline Price Monitoring

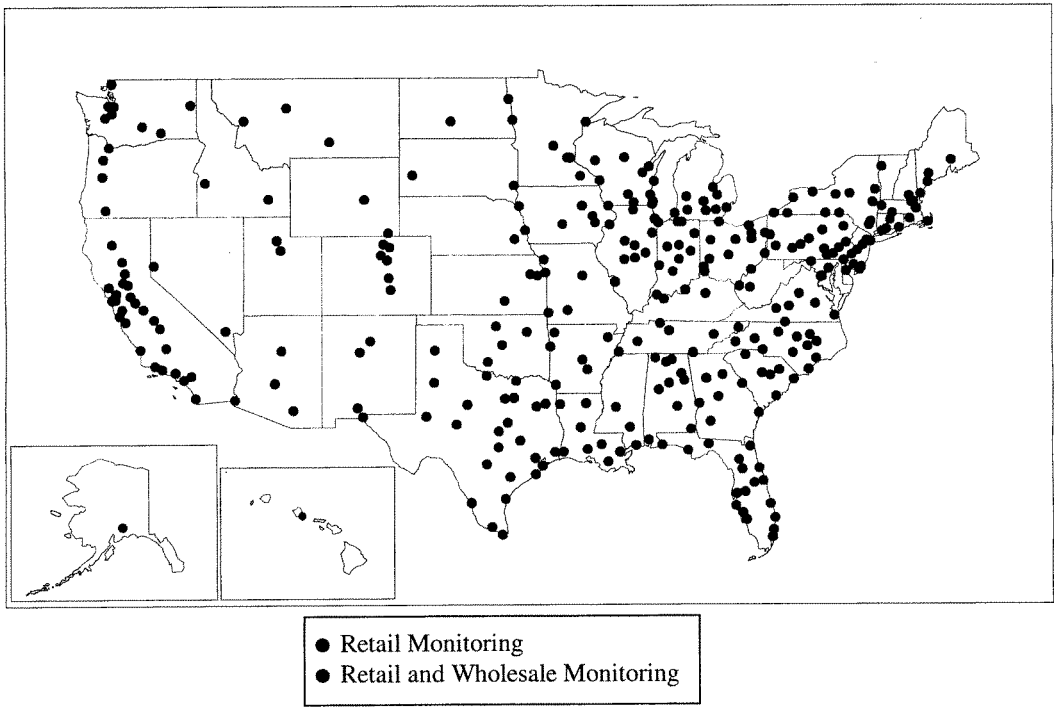

Figure 4

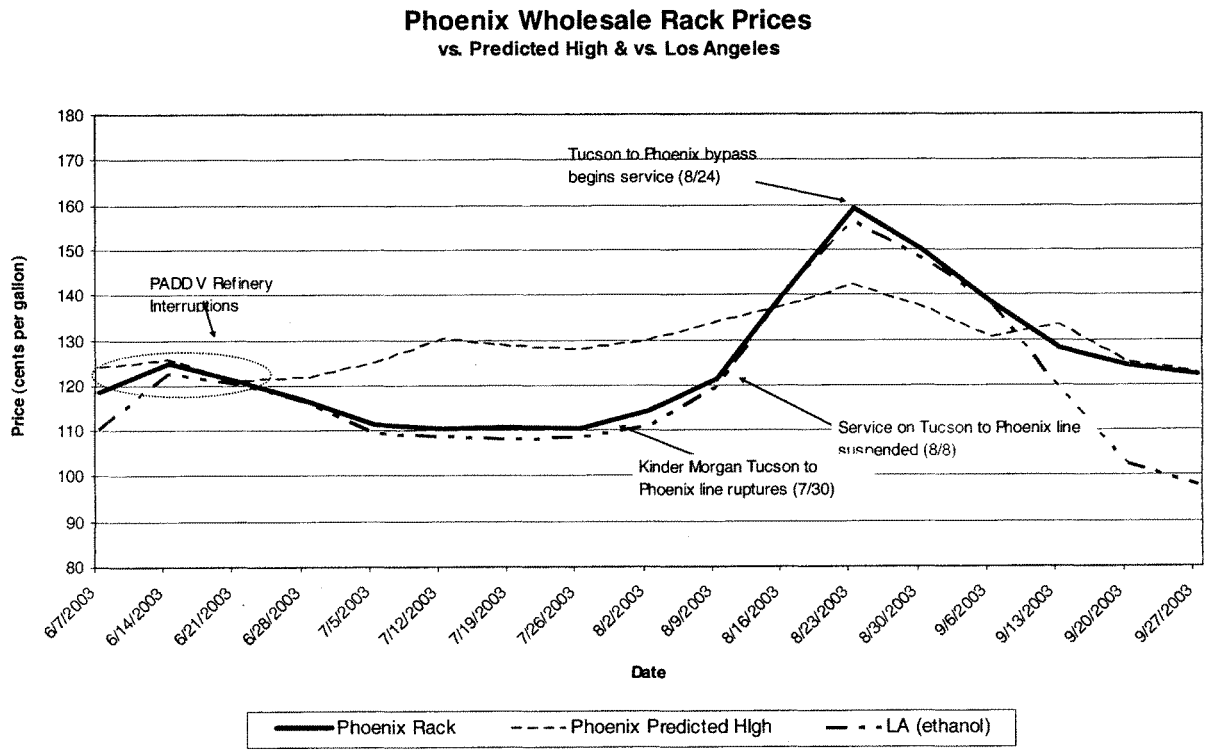
Phoenix Wholesale Rack Prices
vs. Predicted High & vs. Los Angeles
Price (cents per gallon)
180
170
160
150
140
130
120
110
100
90
80
Tucson to Phoenix bypass begins service (8/24)
PADD V Refinery Interruptions
Service on Tucson to Phoenix line suspended (8/8)
Kinder Morgan Tucson to Phoenix line ruptures (7/30)
6/7/2003
6/14/2003
6/21/2003
6/28/2003
7/5/2003
7/12/2003
7/19/2003
7/26/2003
8/2/2003
8/9/2003
8/16/2003
8/23/2003
8/30/2003
9/6/2003
9/13/2003
9/20/2003
9/27/2003
Date
Phoenix Rack
Phoenix Predicted High
LA (ethanol)

Figure 5

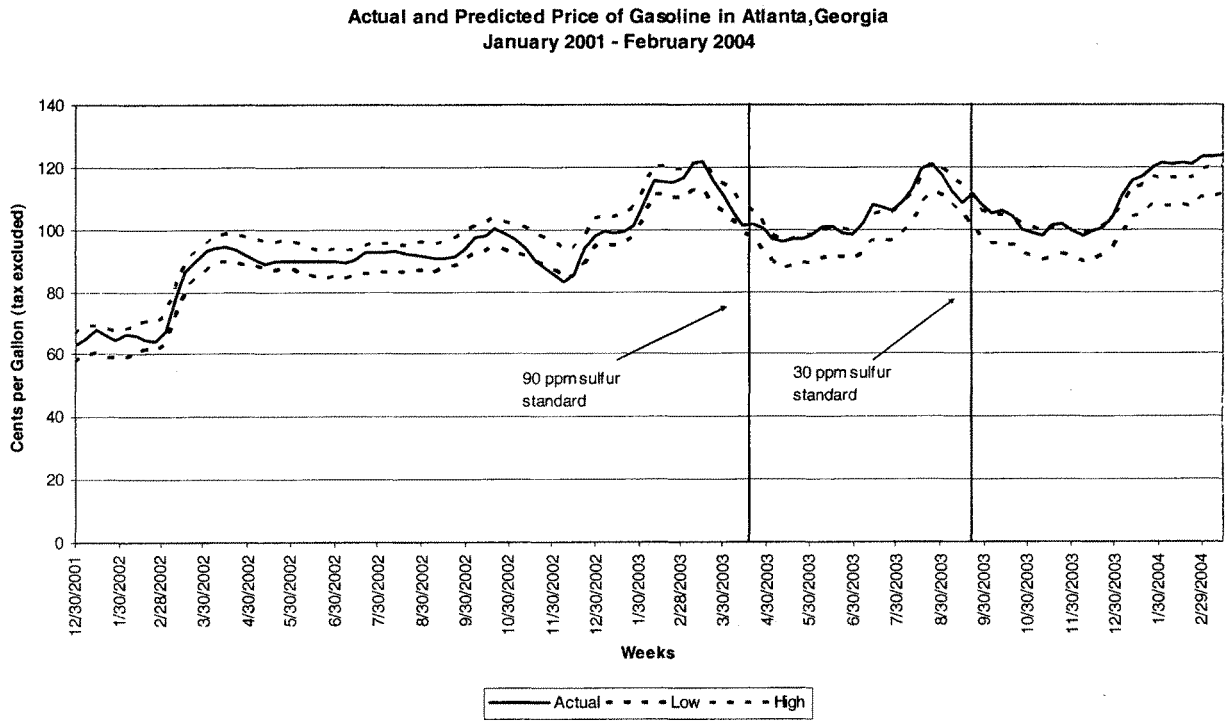
Actual and Predicted Price of Gasoline in Atlanta,Georgia
January 2001 - February 2004
Cents per Gallon (tax excluded)
140
120
100
80
60
40
20
0
90 ppm sulfur standard
30 ppm sulfur standard
12/30/2001
1/30/2002
2/28/2002
3/30/2002
4/30/2002
5/30/2002
6/30/2002
7/30/2002
8/30/2002
9/30/2002
10/30/2002
11/30/2002
12/30/2002
1/30/2003
2/28/2003
3/30/2003
4/30/2003
5/30/2003
6/30/2003
7/30/2003
8/30/2003
9/30/2003
10/30/2003
11/30/2003
12/30/2003
1/30/2004
2/29/2004
Weeks
Actual
Low
High

Figure.6

Actual and Predicted High Price of RFG Gasoline in New York, New York
June 2003-January 2004

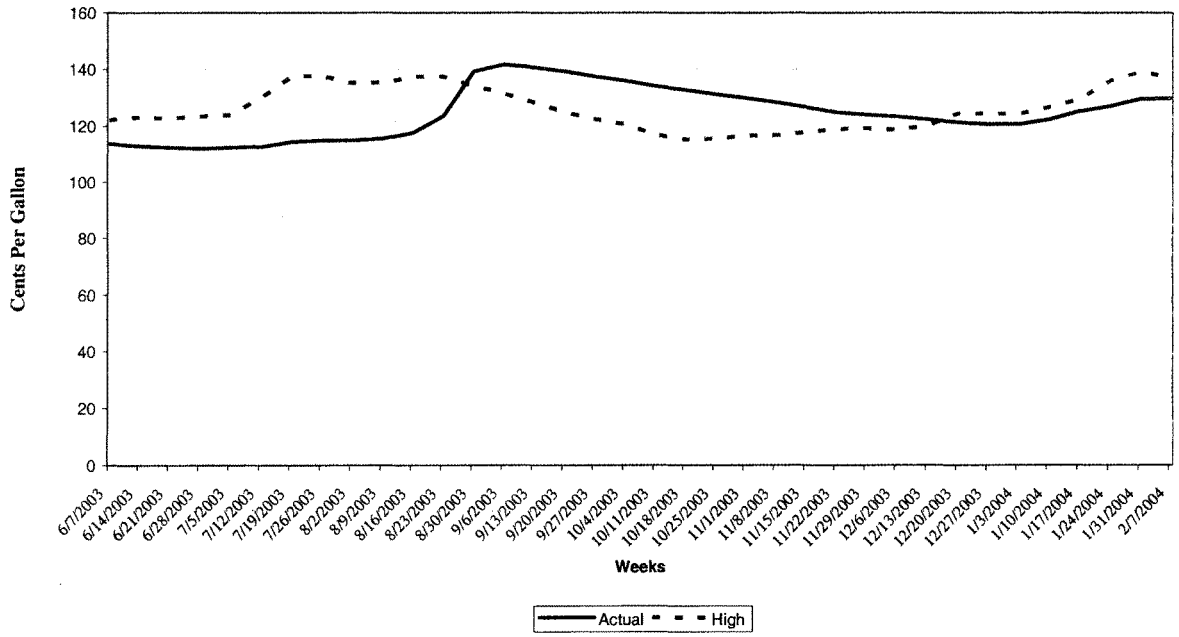

Figure 7

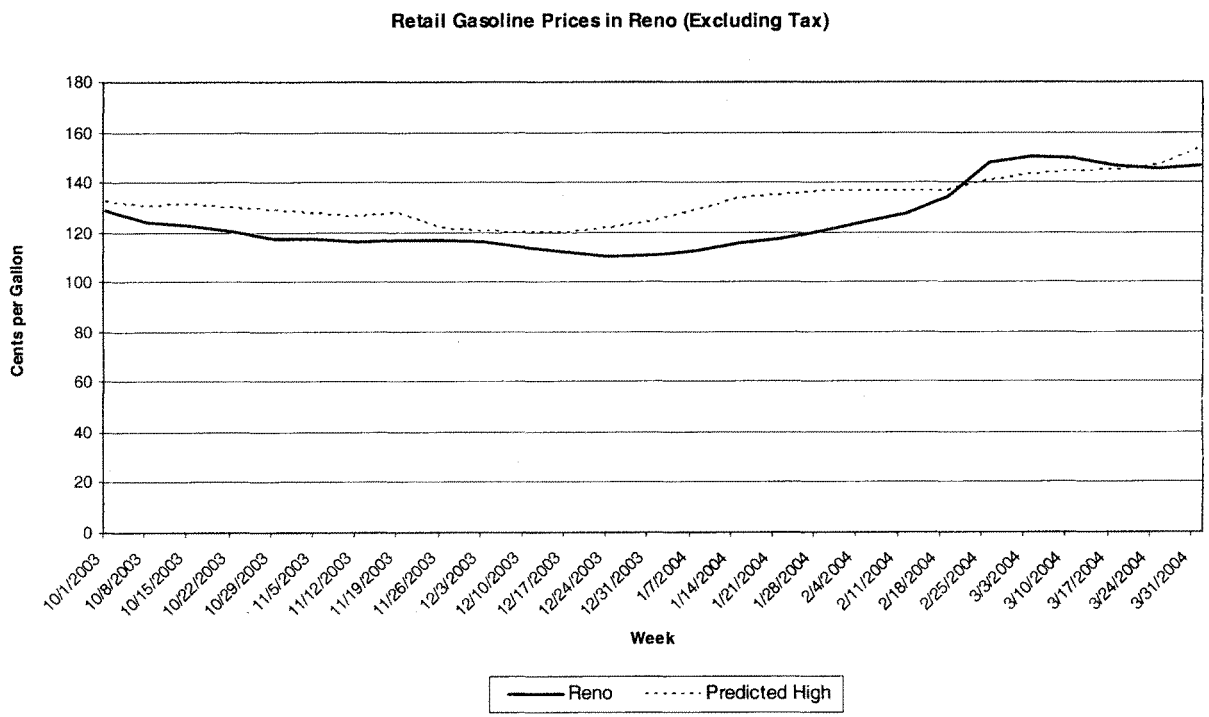
Retail Gasoline Prices in Reno (Excluding Tax)
Cents per Gallon
180
160
140
120
100
80
60
40
20
0
10/1/2003
10/8/2003
10/15/2003
10/22/2003
10/29/2003
11/5/2003
11/12/2003
11/19/2003
11/26/2003
12/3/2003
12/10/2003
12/17/2003
12/24/2003
12/31/2003
1/7/2004
1/14/2004
1/21/2004
1/28/2004
2/4/2004
2/11/2004
2/18/2004
2/25/2004
3/3/2004
3/10/2004
3/17/2004
3/24/2004
3/31/2004
Week
Reno
Predicted High

Figure 8

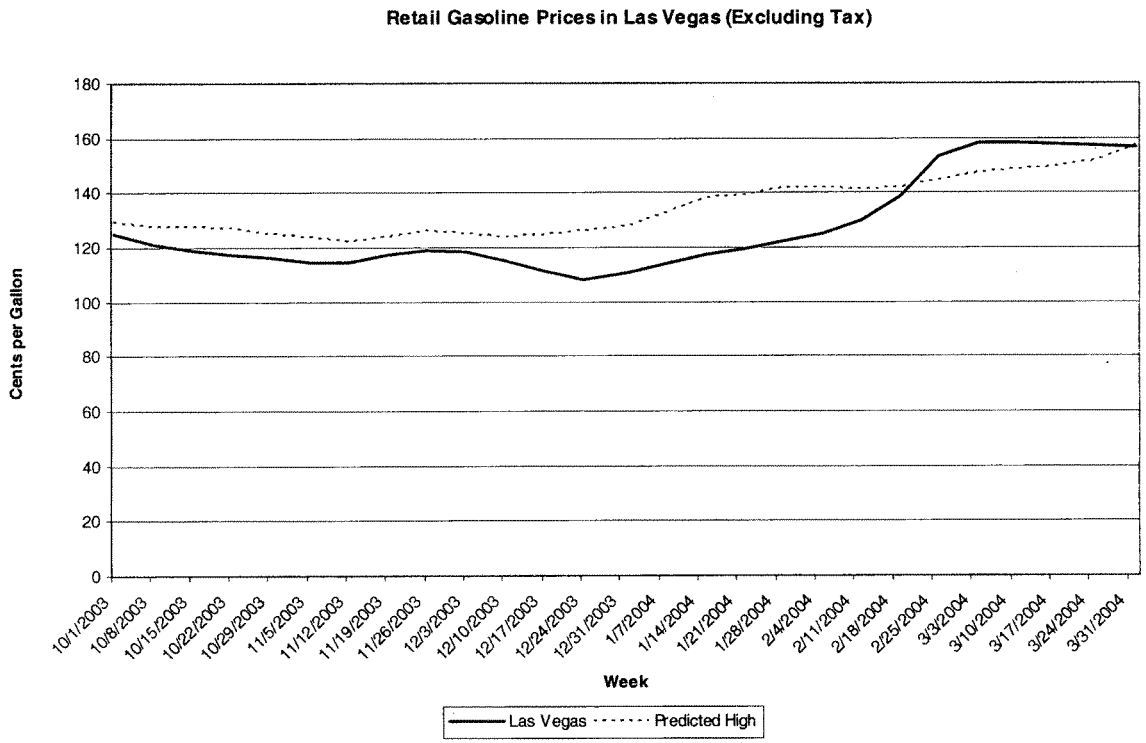
Retail Gasoline Prices in Las Vegas (Excluding Tax)
Cents per Gallon
180
160
140
120
100
80
60
40
20
0
10/1/2003
10/8/2003
10/15/2003
10/22/2003
10/29/2003
11/5/2003
11/12/2003
11/19/2003
11/26/2003
12/3/2003
12/10/2003
12/17/2003
12/24/2003
12/31/2003
1/7/2004
1/14/2004
1/21/2004
1/28/2004
2/4/2004
2/11/2004
2/18/2004
2/25/2004
3/3/2004
3/10/2004
3/17/2004
3/24/2004
3/31/2004
Week
Las Vegas
Predicted High

Figure 9

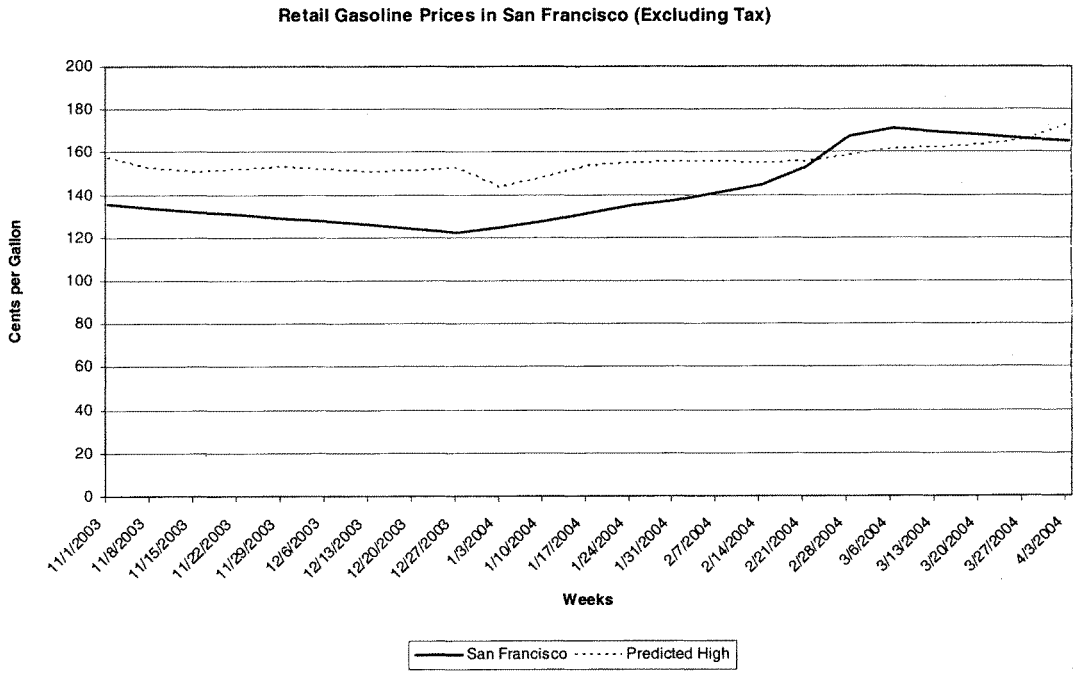
Retail Gasoline Prices in San Francisco (Excluding Tax)
Cents per Gallon
200
180
160
140
120
100
80
60
40
20
0
11/1/2003
11/8/2003
11/15/2003
11/22/2003
11/29/2003
12/6/2003
12/13/2003
12/20/2003
12/27/2003
1/3/2004
1/10/2004
1/17/2004
1/24/2004
1/31/2004
2/7/2004
2/14/2004
2/21/2004
2/28/2004
3/6/2004
3/13/2004
3/20/2004
3/27/2004
4/3/2004
Weeks
San Francisco
Predicted High

Figure 10

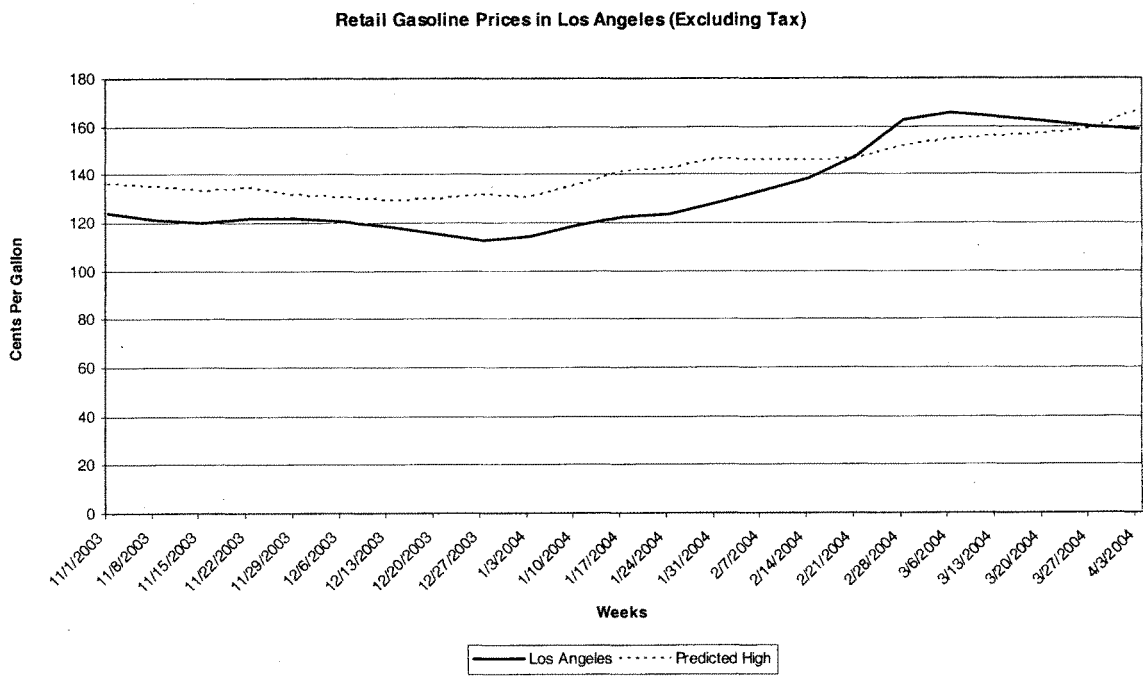
Retail Gasoline Prices in Los Angeles (Excluding Tax)
Cents Per Gallon
180
160
140
120
100
80
60
40
20
0
11/1/2003
11/8/2003
11/15/2003
11/22/2003
11/29/2003
12/6/2003
12/13/2003
12/20/2003
12/27/2003
1/3/2004
1/10/2004
1/17/2004
1/24/2004
1/31/2004
2/7/2004
2/14/2004
2/21/2004
2/28/2004
3/6/2004
3/13/2004
3/20/2004
3/27/2004
4/3/2004
Weeks
Los Angeles
Predicted High

Figure 11

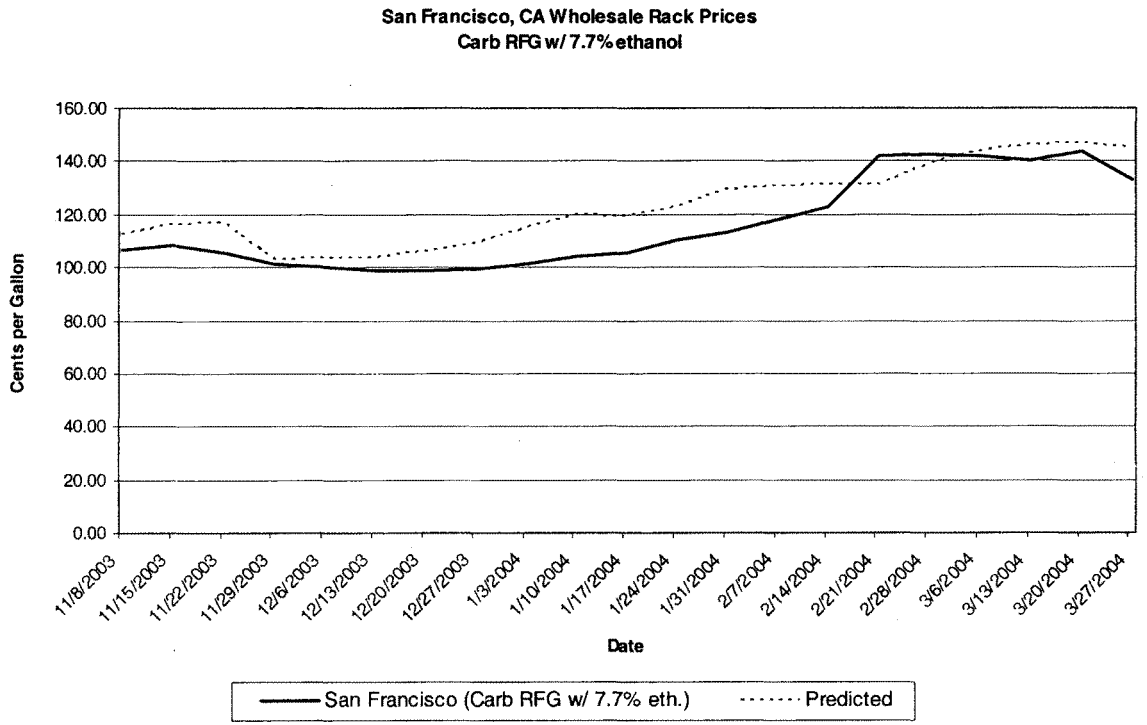
San Francisco, CA Wholesale Rack Prices
Carb RFG w/ 7.7% ethanol
Cents per Gallon
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
11/8/2003
11/15/2003
11/22/2003
11/29/2003
12/6/2003
12/13/2003
12/20/2003
12/27/2003
1/3/2004
1/10/2004
1/17/2004
1/24/2004
1/31/2004
2/7/2004
2/14/2004
2/21/2004
2/28/2004
3/6/2004
3/13/2004
3/20/2004
3/27/2004
Date
San Francisco (Carb RFG w/ 7.7% eth.)
Predicted

Figure 12

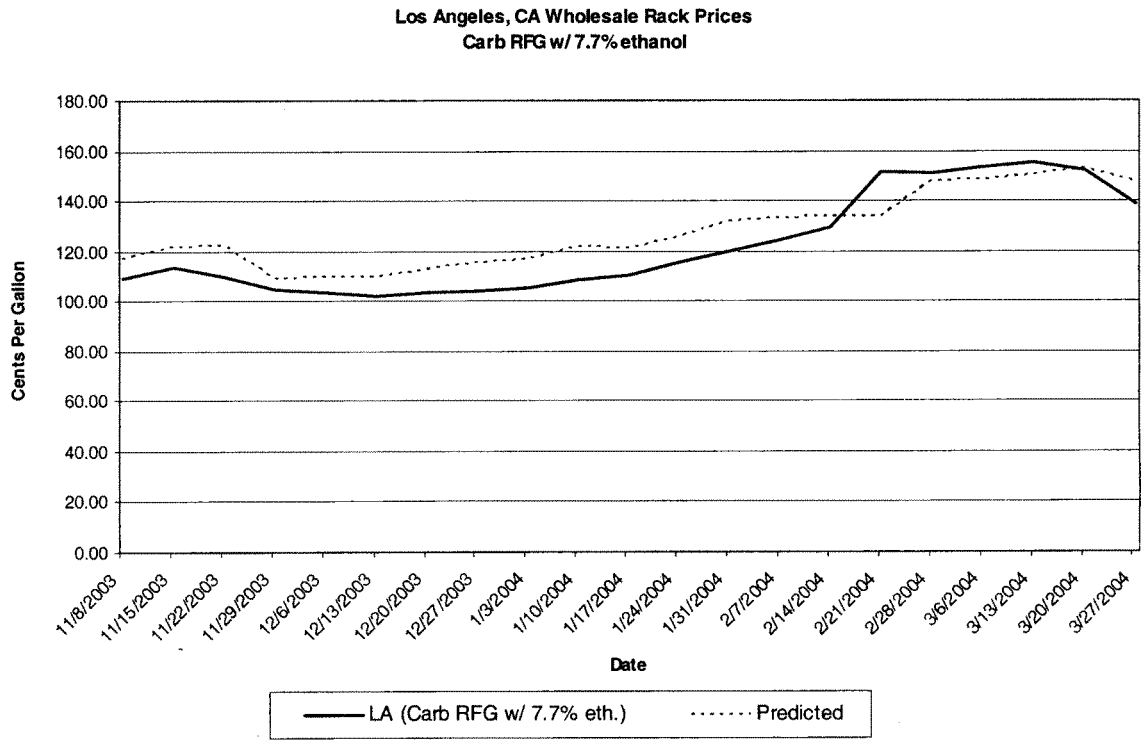
Los Angeles, CA Wholesale Rack Prices
Carb RFG w/ 7.7% ethanol
Cents Per Gallon
180.00
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
11/8/2003
11/15/2003
11/22/2003
11/29/2003
12/6/2003
12/13/2003
12/20/2003
12/27/2003
1/3/2004
1/10/2004
1/17/2004
1/24/2004
1/31/2004
2/7/2004
2/14/2004
2/21/2004
2/28/2004
3/6/2004
3/13/2004
3/20/2004
3/27/2004
Date
LA (Carb RFG w/ 7.7% eth.)
Predicted

Figure 13

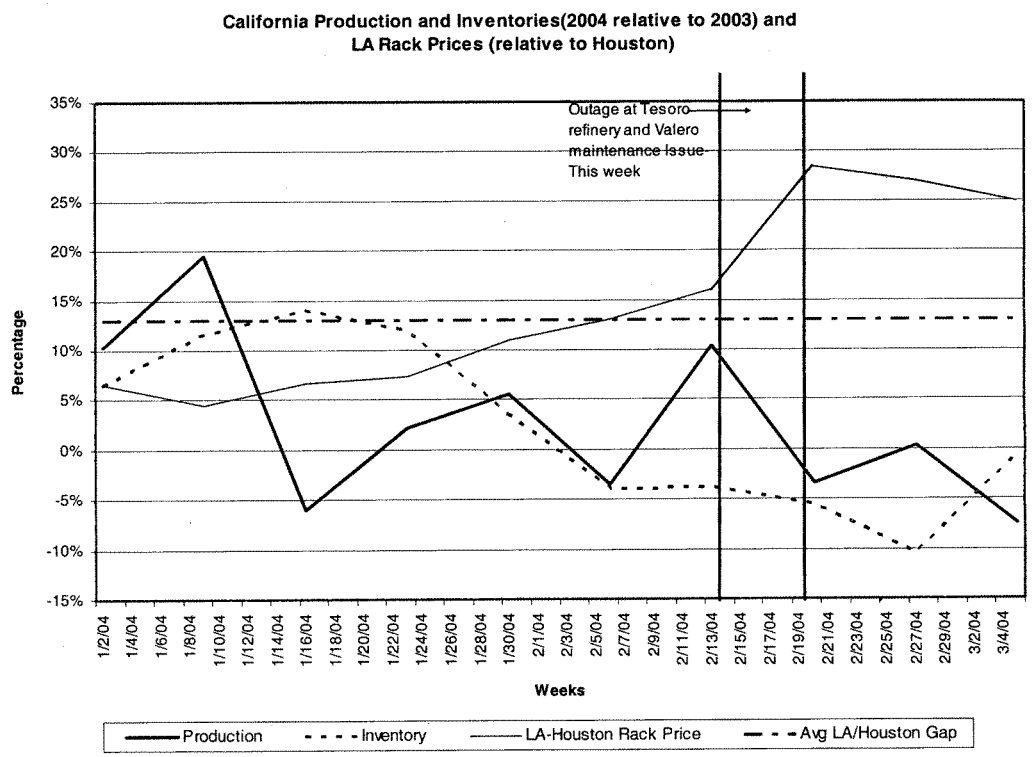
California Production and Inventories(2004 relative to 2003) and
LA Rack Prices (relative to Houston)
Outage at Tesoro refinery and Valero maintenance Issue This week
35%
30%
25%
20%
15%
10%
5%
0%
-5%
-10%
-15%
Percentage
1/2/04
1/4/04
1/6/04
1/8/04
1/10/04
1/12/04
1/14/04
1/16/04
1/18/04
1/20/04
1/22/04
1/24/04
1/26/04
1/28/04
1/30/04
2/1/04
2/3/04
2/5/04
2/7/04
2/9/04
2/11/04
2/13/04
2/15/04
2/17/04
2/19/04
2/21/04
2/23/04
2/25/04
2/27/04
2/29/04
3/2/04
3/4/04
Weeks
Production
Inventory
LA-Houston Rack Price
Avg LA/Houston Gap

Figure 14 - Size Distribution of Operating Refineries 1986 and 2003

Operating Distillation Capacity (barrels per day)	1986 Number of Refineries	1986 Percent of Capacity	2003 Number of Refineries	2003 Percent of Capacity
1-10,000	41	1.8	14	0.5
10,001-25,000	25	2.9	20	2.1
25,001-50,000	40	10.6	12	2.9
50,001-100,000	38	19.2	37	15.9
100,001-200,000	27	26.2	29	27.6
Greater than 200,000	19	39.4	29	51.0
Total[1]	190		141	

Source: EIA, *Petroleum Supply Annual*, (1985, 2002). Capacity as at January 1 of year shown.
Note: [1]Excludes refineries that were classified as "operable" by EIA, but listed with zero operating capacity.

Figure 15 - Refinery closures, 1995-2003

Year	*Owner*	*Location*	*PADD*	*Crude Oil Distillation Capacity (bbl/cd)*
1995	Indian Refining	Lawrenceville, IL	2	80,750
	Cyril Petrochemical Corp.	Cyril, OK	2	7,500
	Powerine Oil Co.	Santa Fe Springs, CA	5	46,500
	Sunland Refining Corp.	Bakersfield, CA	5	12,000
1996	Barrett Refg. Corp.	Custer, OK	2	10,500
	Laketon Refg.	Laketon, IN	2	11,100
	Total Petroleum	Arkansas City, KS	2	56,000
	Arcadia Refg. & Mktg.	Lisbon, LA	3	7,350
	Barrett Refg. Corp.	Vicksburg, MS	3	8,000
	Intermountain Refg. Co.	Fredonia, AZ	5	3,800
1997	Gold Line Refg. Ltd.	Lake Charles, LA	3	27,600
	Canal Refg. Co.	Church Point, LA	3	9,500
	Pacific Refg. Co.	Hercules, CA	5	50,000
1998	Gold Line Refining Ltd.	Jennings, LA	3	12,000
	Petrolite Corp.	Kilgore, TX	3	600
	Shell Oil Co.	Odessa, TX	3	28,300
	Pride Refg. Inc.	Abilene, TX	3	42,750
	Sound Refg. Inc.	Tacoma, WA	5	40,000
1999	TPI Petro, Inc.	Alma, MI	2	51,000
2000	Calumet Lubricants Co.	Rouseville, PA	1	12,800
	Berry Petroleum Co.	Stephens, AR	3	6,700
	Chevron U.S.A. Inc.	Richmond Beach, WA	5	0
2001	Premcor Refining Group	Blue Island, IL	2	80,515
2002	Premcor Refining Group	Hartford, IL[1]	2	64,000
	American International	Lake Charles, LA	3	30,000
	Foreland Refining Corp.	Tonapah, NV	5	0
	Tricor Refining LLC	Bakersfield, CA	5	0
2003	No Refineries Closed			

Source: Energy Information Administration Forms EIA-810, "Monthly Refinery Report" and EIA-820, "Annual Refinery Report." Refineries with no vacuum distillation capacity may still have downstream capacity.

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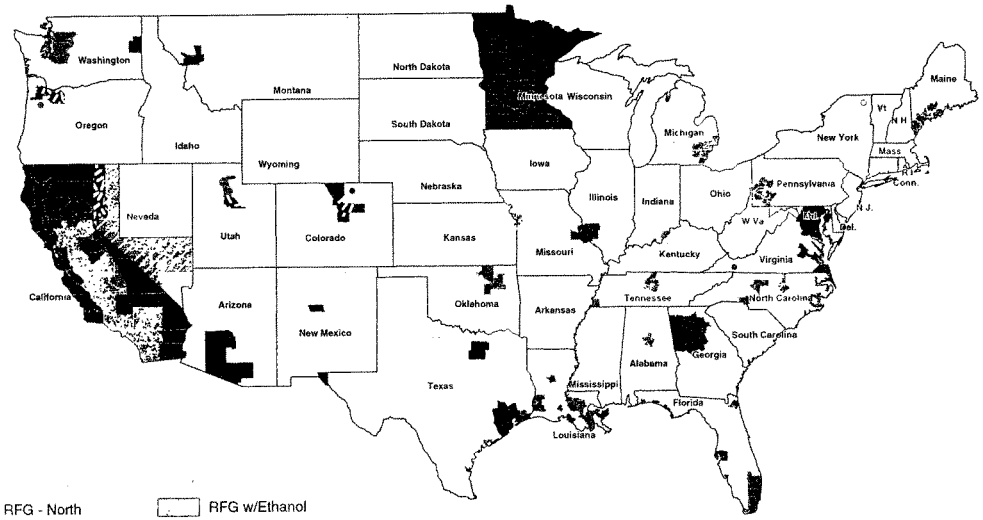
[1] ConocoPhillips purchased some of the assets of the refinery in July 2003 to allow its Wood River, IL refinery to process heavier, lower cost crude oil. http://www.conocophillips.com/news/nr/073103_woodriver.asp.

U.S. Gasoline Requirements



- RFG - North
- RFG - South
- Oxygenated Fuels
- CA CBG
- RFG/CA CBG
- AZ CBG
- Oxy Fuels/7.8 RVP
- Oxy Fuels/7.0 RVP
- Conventional
- RFG w/Ethanol
- NV CBG
- 7.2 RVP
- 7.0 RVP
- 7.8 RVP, MTBE-No Increase
- 7.8 RVP
- 7.0 RVP, 30 ppm S
- 300 ppm S
- 800 ppm S

ExxonMobil
As of November, 2003

This map is not intended to provide legal advice or to be used as guidance for state and/or federal fuel requirements, including but not limited to oxy fuel or RFG compliance requirements. ExxonMobil makes no representations or warranties, express or otherwise, as to the accuracy or completeness of this map.

K.W. Gardner
500667

Appendix

Staff Analysis of General Accounting Office Report[1]

Bureau of Economics
Federal Trade Commission

Introduction

The U.S. General Accounting Office's May 2004 report on effects of concentration and mergers in the petroleum industry considers an important subject with direct relevance for past and prospective antitrust policy in the petroleum industry.[2] The Commission takes its mandate to protect consumers against anticompetitive business practices and mergers very seriously and bases its enforcement decisions on sound legal and economic foundations. These decisions are frequently informed by well documented, careful empirical economic studies by Commission staff or such studies submitted to the Commission by respondents in law enforcement investigations. The Commission accords weight to such studies only when it is fully satisfied with their methodological soundness, the robustness of their results to alternative assumptions and specifications, and their replicability. The GAO report falls short of the standards that the Commission insists on in discharging its law enforcement responsibilities.

It is not possible at this point to assess completely the GAO report's conclusions, nor to

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[1] This Appendix on the GAO Report is a memorandum prepared by the staff of the FTC's Bureau of Economics and does not necessarily represent the views of the Commission or any individual Commissioner.

[2] U.S. General Accounting Office, *Energy Markets: Effects of Mergers and Market Concentration in the U.S. Petroleum Industry* (May 2004) (hereinafter, "GAO report"). As the Commission said in its August 2003 letter commenting on a draft of this report, the draft was fundamentally flawed. The relatively minor changes made in the report since then do not change that conclusion.

provide a full critique of its methodology. The report's econometric models, relevant data panels, and estimation procedures are poorly documented in many key respects. The report's claim that a researcher could replicate its results with the methodological descriptions it provides (assuming the researcher has the relevant data) is simply incorrect.[3] Nevertheless, based on our present understanding, we believe that the GAO report is fundamentally flawed, and cannot provide a reliable foundation for conclusions regarding the competitive effects of changes in concentration or past mergers on prices in the petroleum industry.

In this analysis, we first present an overview of the GAO report that provides general observations and summarizes the report's key findings. We then provide a description of analytical problems common to both GAO's price-concentration study and its specific merger effects study. We address problems specific to each of these studies in the two sections that follow, and we close with a summary of our concerns.

General Observations

The core of the GAO report consists of two econometric analyses: a price-concentration study and a study of the effects of particular mergers on prices. GAO's price-concentration study seeks to describe the relationship between wholesale gasoline prices and concentration in refinery

[3] For example, the report's description of how standard estimation techniques of a well known, proprietary statistical program (STATA) were modified is inadequate to permit a researcher to replicate the estimation method with reasonable confidence. Among other deficiencies, the report fails to document precisely how competitive overlaps at the rack were identified, which racks were assumed to be affected by which mergers, and precisely how alternative specifications (including ones that appeared or were mentioned in GAO's summer 2003 draft report, but not in its final report) yielded different results.

capacity, measured at the PADD level, during 1994 through 2000.[4] In its second study, GAO attempts to estimate the effects of eight petroleum company mergers completed during 1994 through 1999 on wholesale gasoline prices.

The wholesale gasoline prices used by GAO are posted rack prices adjusted for the price of crude oil. These are the posted prices for purchases by independent distributors (typically referred to in the industry as "jobbers") that pick up gasoline at terminal racks for subsequent delivery to service stations. For the nation as a whole, more than half of all gasoline is sold at the rack, although this proportion varies regionally.[5]

The GAO report does *not* address the effects of concentration or mergers on retail pump prices.[6] Rack wholesale prices and retail prices do not always move together, in part because rack prices do not necessarily measure actual wholesale transactions prices, which are also affected by discounts, and in part because significant quantities of gasoline reach the pump without going through jobbers.[7]

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[4] PADD stands for Petroleum Administration for Defense District. PADD I consists of the East Coast. PADD II consists of the Midwest. PADD III includes the Gulf Coast. PADD IV consists of the Rocky Mountain region. PADD V is made up of the West Coast plus Alaska and Hawaii.

[5] Energy Information Administration (EIA) data show that in PADD V (the West Coast) rack sales account for only about one quarter of all refiner dispositions of gasoline. In that area, sales to lessee and open retailer dealers on a dealer tank wagon basis and transfers to refiner owned and operated stations account for about three-quarters of all transactions. In other parts of the country, such as the mid-continent, the proportion of rack sales is greater than the national average. See EIA Form 782-A, "Refiners/Gas Plant Operators Monthly Petroleum Products Sales Report," (monthly).

[6] GAO report at 199.

[7] A recent retrospective study by Commission economists concerning the effects of the Marathon-Ashland joint venture on gasoline prices underscores the significance of the

To put into perspective the task of explaining wholesale gasoline prices (minus crude oil prices), Figure A-1 shows monthly national average wholesale prices (minus crude oil prices) in 2000 dollars between 1986 and the present. The average margin between wholesale gasoline prices and crude oil prices over this period was 20.4 cpg in 2000 dollars. The period covered by the GAO report–between January 1, 1994, and December 31, 2000, is indicated by vertical lines.

The GAO report uses two main variables to control for factors affecting wholesale gasoline prices other than the potential effects of concentration and mergers: a measure of national refinery capacity utilization and a PADD-level measure of gasoline inventories as a proportion of an estimate of expected demand for gasoline.[8] GAO believes, incorrectly, that with the inclusion of these two variables its models isolate the effects of concentration and mergers on wholesale gasoline prices.[9]

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wholesale/retail distinction. This study found that wholesale prices increased after the formation of the joint venture, a finding broadly consistent with GAO's finding. Unlike GAO, Commission economists could not conclude that this price increase was attributed to the joint venture because the price increase occurred about a year and half after the formation of the joint venture and because the price increase occurred about the same time as regulatory changes affecting the demand and supply of fuels with certain specifications. Commission economists, however, saw no evidence of an increase in *retail* prices after the formation of the joint venture. Apparently stations facing the higher wholesale rack price were not able to pass through these price increases because of competition with stations directly supplied by refiners. See Christopher T. Taylor and Daniel S. Hosken, "The Economic Effects of the Marathon-Ashland Joint Venture: The Importance of Industry Supply Shocks and Vertical Market Structure, " FTC Bureau of Economics Working Paper (March 17, 2004).

[8] As discussed in greater detail below, the GAO report also used two control variables in some of its estimates to account for supply disruptions.

[9] GAO report at 216.

Results of GAO's Price-Concentration Study

The GAO report generally finds positive, statistically significant correlations between PADD-level refinery capacity concentration and wholesale prices.[10] The report provides a total of ten estimates of the effects of concentration on prices. These estimates cover three fuel types (conventional, reformulated, and CARB gasoline) and different geographic areas. Seven estimates, all involving either conventional or reformulated gasoline, found that observed concentration increases were associated with wholesale price increases ranging from 0.15 cents per gallon (cpg) to 1.3 cpg. Although increases in concentration were associated with larger increases in wholesale CARB gasoline prices, about 7 cpg for branded gasoline and nearly 8 cpg for unbranded,[11] the results were not at a level of confidence normally thought to be statistically significant. Moreover, the GAO report did not find a statistically significant effect of concentration on wholesale prices for unbranded conventional gasoline in the Eastern U.S. (PADDs I, II, and III).

Results of GAO's Study of Particular Mergers

GAO also examined eight mergers completed between 1994 and 1999.[12] The GAO report provides 28 estimates of the effects of these mergers on wholesale prices of branded and unbranded gasoline of three types (conventional, reformulated, and CARB). GAO reports that

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[10] The GAO report's price-concentration regression results are presented in Tables 24 through 27 at 143-150.

[11] GAO's estimates of the effect of concentration on wholesale prices for CARB gasoline were significant only at the 10% level; this is a level of significance less stringent than is usually employed by researchers.

[12] The GAO report's merger regression results are presented in Tables 21 through 23 at 143-146.

most mergers were associated with wholesale price increases, but the results were very mixed. In sixteen cases, GAO finds a positive and statistically significant effect of a merger on price, ranging from about 0.4 cpg to 6.9 cpg. In seven cases, GAO finds a negative and statistically significant effect, ranging from about -0.4 cpg to -1.8 cpg. In the other five cases, GAO finds no statistically significant effect.

The remainder of this analysis will explain weaknesses in the GAO report. Because of these weaknesses, the results of the GAO analyses are unreliable.

Problems Common to Both the Price-Concentration and Merger Analyses[13]

The GAO analyses did not adequately account for factors other than changes in concentration or mergers that influenced wholesale gasoline prices during the relevant period.[14]

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[13] We also have serious concerns with statistical techniques GAO used in conducting its studies. Specifically, from its description, it is not clear that GAO correctly implemented its instrumental variables estimator. Also GAO's standard errors in some regressions are unusually small; this result raises concerns about how they were estimated. The extremely high levels of significance on many of the coefficient estimates on Tables 21 and 24 (with accompanying t-statistics of 50 or greater) suggest that the standard errors are severely downward biased. This problem is common when attempting to measure the effect of aggregate public policy variables (mergers or concentration) on smaller micro units (racks) by merging the aggregate data with micro observations, based upon the assumption that each micro unit (rack) is an independent unit. See Moutlon, Brent R., "An Illustration of a Pitfall in Estimating the Effects of Aggregate Variables on Micro Units," *Review of Economics and Statistics*, May 1990, 72(2) at 334-38.

[14] As a first step to test the robustness of the GAO estimating equation, Commission economists used terminal rack price data from 1997 through 2000 for five cities for reformulated gasoline. Commission economists estimated the GAO's equation for rack price minus the price of crude using GAO's variables (PADD ratio of inventory to expected demand, national refinery utilization, a Midwest gasoline crisis variable, and a fixed effect for each city). Commission economists added variables for seasonality, imports, price of MTBE, the GAO inventory variable in other PADDs, and alternative measures for supply disruptions in the summer of 2000. As discussed below, in a regression containing all these additional variables, each was estimated to be statistically significant in explaining variation in wholesale gasoline prices.

Because we do not have the data and documentation required to replicate the GAO study, and GAO refuses to share this information with us, we cannot determine the precise extent to which accounting for these factors would change the report's results. Nevertheless, we can demonstrate that a number of factors that have significant effects on wholesale gasoline prices were not taken into account in the GAO study. This result is extremely important. All researchers know that failure to control for relevant variables undermines the results of a study. To the extent that these omitted variables are correlated with concentration or mergers, these omissions will bias GAO's estimates of the effects of concentration and mergers on wholesale gasoline prices.[15]

Supply Disruptions and Gasoline Formulation Changes

The GAO analyses attempted to control for some specific supply disruptions. GAO used variables that were designed to control for the Midwest gasoline crisis of 2000 and for a series of disruptions in 1999 and 2000 on the West Coast. The GAO report found that these supply disruption variables have large and statistically significant effects on wholesale prices. The GAO report found that inclusion of these variables reduced the magnitude of estimated merger and concentration effects in many cases, but for many of the regressions had little impact on their

---

[15] The GAO report (at 207) agrees that omitted variables could bias regression estimates, but claims that this criticism does not apply to its models. The GAO report, however, offers no basis for a claim that omitted variables are not an important potential problem in its estimations of the effects of mergers and concentration on price, other than assertions that all necessary control variables have been included. The GAO report (also at 207) cites to a textbook by William H. Greene (Econometric Analysis, 4th edition, at 334-337), which the GAO report describes as providing "a more relevant discussion" of the effects of omitted variables upon regression results, a discussion that uses a simple estimation of the demand for gasoline as an illustrative example. However, Greene's discussion is merely a technical articulation of the potential bias of regression estimates due to omitted variables--a discussion with which we fully agree. It does not provide any support for the proposition that the GAO report's estimates do not suffer from significant omitted variable bias.

statistical significance.[16]

We believe that GAO's measures of supply disruptions are both incomplete and poorly implemented. For example, GAO assumed that the effects of the Midwest gasoline crisis were limited to rack prices in PADD II (the Midwest) during June 2000.[17] In fact, the Midwest gasoline crisis began in mid-May, in the case of reformulated gasoline, and prices for conventional gasoline continued to be elevated well into July in some cities, Detroit in particular. Also, the Midwest gasoline crisis significantly impacted prices outside PADD II. Figure A-2 shows the variation in the wholesale price of gasoline (less the price of crude oil) in Boston, after controlling for GAO's variables for national refinery capacity utilization and the ratio of inventories to expected demand. This gasoline price spike in Boston at the time of the summer 2000 Midwest gasoline crisis demonstrates that GAO did not adequately control for the Midwest gasoline crisis.

Similarly, Figure A-2 reveals a price spike in Boston in March/April 2000, which occurred during a switch from winter to summer specifications for reformulated gasoline. This switch was difficult to accomplish because 2000 was the first year of the reformulated gasoline phase 2 program.[18] The fact that the March/April 2000 spike can be observed in Figure A-2

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[16] One exception is in the GAO report's estimation of the effects of concentration on unbranded conventional gasoline prices in PADDs I through III. In that estimation, GAO found that concentration had a positive, statistically significant effect on prices if the Midwest gasoline crisis variable were omitted from the regression but that concentration had no statistically significant effect if this disruption variable were included.

[17] GAO report at 115-116, 120.

[18] The GAO report (at 198) incorrectly states that the switch from reformulated gasoline phase I to phase II affected only the Midwest. This major change in reformulated gasoline formulation affected all areas in the nation requiring reformulated gasoline in 2000.

demonstrates that GAO is incorrect in claiming that its variables measuring refinery capacity utilization and the ratio of inventory to estimated demand account for price effects associated with formulation changes.

Because of GAO's failure adequately to control for the summer 2000 Midwest gasoline crisis and the March/April 2000 formulation change, GAO's analysis may have incorrectly attributed these two prices spikes to the Exxon-Mobil merger, which GAO assumed became effective on March 1, 2000. The GAO analysis of the Exxon-Mobil merger is likely to have similar deficiencies in other areas outside PADD II.[19]

More generally, supply disruptions and changes in fuel formulations during the 1990s present difficult analytical challenges in isolating any effects of concentration and mergers on prices. The GAO report concedes that its controls for supply disruptions are "crude, at best."[20] We agree. Unfortunately for the reliability of the GAO report, "crude" in this context equates with a significant source of inaccuracy.

A further complicating factor is that there are a number of different formulations of conventional gasoline with different Reid Vapor Pressures (RVP) and oxygenates. These differences in conventional formulations can have a significant impact on prices. For example, Michigan and large parts of Ohio, Indiana, and Illinois use standard conventional gasoline, with

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[19] According to Oil Price Information Service data in our possession, these 2000 price spikes occurred in other cities in PADD I that required reformulated gasoline. The prices of conventional gasoline in PADD I were also affected by the problems in the Midwest to a lesser extent.

Supply disruptions other than those associated with the Midwest gasoline crisis and the West Coast disruptions in 1999 and 2000 identified by the GAO report may also have effects extending beyond PADD boundaries for particular gasoline formulations.

[20] GAO report at 116.

the exception of the greater Detroit area, which since 1996 has required a low RVP variant of conventional gasoline. Testifying in 2002, then Michigan Attorney General Jennifer M. Granholm stated that, during the past few years, differences in fuel specifications had inhibited the market's ability to respond to gasoline price spikes. Specifically, Ms. Granholm noted that when prices spiked in Detroit in the summer of 2000, differences in fuel specifications impeded the transfer of supplies from Ohio, Indiana, and Illinois to Detroit and therefore slowed the eventual decline in Detroit prices.[21]

Seasonal Effects

Gasoline prices (minus crude oil prices) tend to increase in the summer, as stronger demand pushes refineries, pipelines, and other parts of the supply infrastructure to full capacity. The GAO report claims that its variable measuring the ratio of gasoline inventories to estimated demand accounts for such seasonality.[22] This assertion is incorrect. We found that an additional variable that accounts directly for seasonal changes is associated with an additional statistically significant summer price difference of 1 cpg to 2 cpg.

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[21] Statement of Jennifer M. Granholm, Attorney General, State of Michigan, at Hearings before the Permanent Subcommittee on Investigations of the Senate Committee on Governmental Affairs, *Gas Prices: How Are They Really Set?,* April 2002. Ms. Granholm also raised concerns about firm market power and effects of petroleum mergers on gasoline prices. In particular, Ms. Granholm stated that her office was evaluating for anticompetitive effects the 1999 acquisition of US's Michigan terminal and marketing assets by Marathon-Ashland, a transaction considered by the GAO report. As of the date of her testimony, Ms. Granholm said no conclusions about this transaction had been reached. We are not aware of any publicly released findings or enforcement actions taken by the State of Michigan concerning the MAP-US transaction since that time.

In addition to these fuel specification issues, the closure of one of Michigan's two refineries in 1999 and outages during the summer of 2000 on the Wolverine pipeline further complicate analysis of gasoline prices in Michigan in 2000. The GAO report does not acknowledge these potentially significant events.

[22] GAO report at 197.

GAO's failure fully to account for seasonal factors probably has important implications for the report's findings about merger price effects. GAO's study compares prices during pre- and post-merger periods, or "windows." The pre-merger window refers to a period before the merger has taken place. The post-merger window refers to a period during which the researcher assumes that the merger's effect on prices would have occurred. Because some of the post merger windows used by GAO include more summer months than others, GAO's inadequate method of accounting for seasonality may confound a merger effect with a seasonal effect.

Imports

GAO's analyses fail to account for the competitive role of imports. There are sizeable seasonal and annual fluctuations in gasoline imports: between 1994 and 2000 the percentage of weekly U.S. consumption provided by imports ranged from 1.5 percent to 10 percent. When a variable for gasoline imports is added to the GAO report's variables, we found that this variable is significantly related to gasoline prices.

Price of MTBE

The GAO report does not control for the price of the oxygenate MTBE, which is an important additive and cost component for reformulated and CARB gasoline. Between 1995 and 2000, reformulated gasoline (other than upper Midwest reformulated gasoline, which uses ethanol as an oxygenate) and California's CARB gasoline contained by volume up to 10 percent MTBE. The price of MTBE fluctuated from a low of approximately 50 cpg in early 1999 to over $1.60 a gallon in the summer of 2000. When the price of MTBE is added as an explanatory variable to the GAO's control variables, it adds statistically significant explanatory power.

Inventories in Other PADDs

The GAO does not account for linkages among PADDs and inventories in other PADDs in explaining prices for gasoline in a given PADD. PADDs east of the Rockies are linked by product pipelines and in some cases barge and tanker traffic. As a result, inventories in other PADDs may affect gasoline prices in a given PADD. We found that the addition of variables measuring the ratio of inventory to estimated demand in other PADDs has a statistically significant effect in explaining wholesale gasoline prices in a given PADD.

Difference-in-Difference Estimation

In models that attempt to determine the effect of changes in concentration or mergers on prices, even the addition of variables, as we have suggested above, may not adequately control for other factors that affect prices. To alleviate this problem, modern economists often examine how prices change in markets affected by a merger *relative* to markets unaffected by the merger.[23] This approach is called difference-in-difference estimation. GAO did not use this modern method. The result is that GAO failed adequately to control for many factors that have significant effects on wholesale gasoline prices, and therefore GAO is likely to have attributed to changes in concentration and to mergers price changes that occurred for reasons unrelated to those changes in industry structure.

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[23] Vita, M. and S. Sacher, "The Competitive Effects of Not-for-Profit Hospital Mergers: A Case Study," *Journal of Industrial Economics,* 49(1), March 2001, pp. 63-84; Kim, E.H, and V. Singal,"Mergers and Market Power: Evidence from the Airline Industry," *American Economic Review*, 83(3), June 1993, pp. 549-69; Hastings, J. "Vertical Relationships and Competition in Retail Gasoline Markets: Empirical Evidence from Contract Changes in Southern California," *American Economic Review*, 94(1), March 2004, pp. 317-328.

Problems Specific to the GAO's Price-Concentration Analyses

As the Commission and its staff told GAO last August, price-concentration studies of the type carried out by GAO are subject to several serious problems. Because these problems are now widely understood, modern economists seldom use this technique. Moreover, the methodology used in GAO's price-concentration analyses has additional serious deficiencies.[24]

Improper Measures of Supplier Concentration

Use of Inappropriate Geographic Markets

Any reliable price-concentration study must be based on properly defined geographic markets. If concentration affects competition, it will do so in the particular geographic area in which that competition occurs. Unless the researcher measures this geographic area correctly, the researcher can have no confidence that the results of the analysis have anything to do with measured changes in concentration. If the market is defined too broadly or too narrowly, the researcher cannot tie any change in prices that may have occurred to the change in measured concentration.

Through decades of experience, the Commission has developed expertise in defining the relevant geographic areas, or markets, in which to measure concentration. Neither the draft GAO report, which the Commission and its staff reviewed last summer, nor the final report measures concentration in *any* properly defined geographic markets.

The GAO report measures concentration for refinery capacity at the PADD level in

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[24] Letter to James E. Wells, Director of Natural Resources & Environment, U.S. General Accounting Office, from Timothy J. Muris, Chairman, Federal Trade Commission (plus enclosures), August 25, 2003.

analyzing rack prices in the corresponding PADD.[25] Our experience indicates that the geographic markets that are relevant to competition in wholesale gasoline do not coincide with PADDs. PADDs are much too large to be properly defined geographic markets for GAO's purposes. Because GAO has measured concentration incorrectly, its analyses of the relationships between concentration and prices are invalid. For this reason alone, the price-concentration results reported in the GAO report should be given no weight.

Neglect of Pipeline and Water Deliveries of Gasoline

Furthermore, the GAO report's measure of supplier concentration overlooks the fact that local refineries are not the only important sources of supply for wholesale gasoline. Pipeline and water deliveries are also important in some geographic markets.

PADD I provides an illustration of the importance of the preceding two weaknesses of the GAO methodology. While the GAO report treats PADD I as a single market, product terminals in the northern and southern parts of PADD I have significantly different sources for wholesale gasoline. Moreover, these sources include pipelines and water shipments. The southern part of PADD I (Maryland and south) has few refineries and is very dependent on shipments on the Colonial and Plantation pipelines and water shipments from the Gulf area refineries in PADD III. The northern part of PADD I (Pennsylvania and north) has greater local refinery production, but still receives significant supplies from foreign imports and from PADD III.

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[25] GAO's August 2003 draft report used state-level gasoline sales as the basis for measuring concentration. In its final report, GAO concluded that concentration based on PADD-level refinery capacity is a more appropriate measure on the grounds that this measure more effectively captures refiners' ability to control gasoline sales. The focus on refinery capacity ignores potential effects of ownership of other assets, such as pipelines, product terminals, and branded marketing assets, including brand capital, contractual arrangements with jobbers, and retail locations. Many of the Commission's petroleum merger divestitures have involved such non-refinery assets.

Errors in Measurement of Relevant Capacity

GAO's measure of concentration potentially suffers from other important errors. To the extent that concentration of refinery capacity is relevant to gasoline prices, the capacity in question should measure capacity to produce gasoline. Yet, GAO used crude oil distillation capacity rather than gasoline production capacity. The share of crude oil distillation capacity that can be used to produce gasoline varies among refineries and may change over time for a given refinery. As a result, changes in GAO's measure of concentration do not necessarily reflect changes in concentration for gasoline production capacity.[26]

Spurious Correlations Do Not Indicate Causation

Another serious problem with the GAO price-concentration analyses is spurious correlation. GAO's measures of concentration tend to increase over time. This increase is explained, at least in part, by technological and regulatory changes that have increased economies of scale. Wholesale gasoline prices may have tended to increase over time as well. This increase may be explained, at least in part, by the higher costs of producing cleaner fuels. Even if there is in fact no causal link between concentration and wholesale prices, because of time trends in both variables there may be a positive correlation between concentration and wholesale prices. Thus, these correlations do not necessarily imply causation.

Overstatement of Statistical Significance

In addition, GAO seeks to explain *weekly* variation in wholesale prices at individual racks with an *annual* PADD-level measure of concentration. For this regression, GAO is

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[26] Moreover, measures of capacity do not account for the fact that capacity utilization varies among refineries and over time. GAO controlled imperfectly for capacity utilization because utilization rates are available only at the national level.

essentially replicating the same observation multiple times but is assuming that each observation provides independent information. This method of estimation could lead GAO to find apparently significant relationships where none exist.[27]

Problems Specific to the GAO's Analyses of the Effects of Particular Mergers

Unexpected Results

On their face, some of GAO's findings regarding the effects of particular mergers are contrary to expectation.[28] Compared to markets for gasoline in other areas of the country, California markets for CARB gasoline are relatively isolated from outside sources of supply. Yet, in three of the four reported regressions for CARB gasoline, GAO finds that mergers affecting CARB gasoline had no significant price effect or were associated with a statistically significant *decrease* in price.

In the fourth instance, branded gasoline in the case of the Tosco/Unocal merger, GAO found a large, statistically significant price increase. Yet this price increase for branded gasoline is puzzling, because the GAO report found that this merger was associated with a decrease (albeit a statistically insignificant one) in the price of unbranded gasoline. Tosco had a branded presence in few of the cities affected by this merger, and where it did, Unocal typically did not

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[27] Furthermore, the EIA data on which GAO based its concentration measure were not available for two years (1996 and 1998). As a result, in each case GAO computed an average of concentration in the two adjacent years and used this value for the missing year. The fact that GAO created the values of concentration for two of the seven years in its study casts further doubt on the reliability of the results.

[28] Moreover, the GAO report notes (at 140) that in its data sample an average of ten suppliers posted at racks selling conventional gasoline. (The average numbers of posting suppliers for reformulated and CARB gasolines were not reported.) In markets with ten significant suppliers, competitive problems are unusual.

have a significant branded presence.[29] Under these circumstances, it is virtually impossible to imagine an anticompetitive theory that would be consistent with a large increase in branded prices but no increase in unbranded prices. Had the GAO researchers understood this problem, they would have recognized that their result must be flawed.

The relatively large and statistically significant price increases that the GAO report associates with the Exxon/Mobil merger are also extraordinarily dubious on their face. The GAO report concluded that in PADDs I and III the Exxon/Mobil merger was associated with price increases of 3.7 cpg and 5.0 cpg for branded and unbranded conventional gasoline, respectively, and 1.6 cpg and 1.0 cpg for branded and unbranded reformulated gasoline, respectively.[30] Yet, the Commission required large scale divestitures of Exxon and Mobil assets in these areas of the country as a condition for allowing the transaction to proceed. These divested assets included retail outlets, pipeline interests, terminals, jobber supply contracts, and brand rights. These

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[29] See, e.g., Justine Hastings and Richard Gilbert, "Market Power, Vertical Integration and the Wholesale Price of Gasoline, " Working Paper (June 2002), at 13-14. Tosco sold unbranded gasoline at the rack in all the areas considered in their analysis, while Unocal sold unbranded gasoline at the rack in some areas but not others.

[30] Exxon and Mobil also directly competed on the West Coast in production of CARB gasoline and other products. As another condition for proceeding with the merger, the Commission required the parties to divest the Exxon refinery in Benecia, California, plus related marketing assets. Although the Commission found other refiners in California to be highly integrated into retail operations, Exxon was found to differ because it sold much of its output on an unbranded basis to non-integrated marketers and through other channels. See the Commission's Analysis of Proposed Consent Order to Aid Public Comment, In the Matter of Exxon Corporation and Mobil Corporation, File No. 9910077, Docket No. C-3907, available at http://www.ftc.gov/os/1999/11/exxonmobilana.pdf.

The GAO report did not analyze the impact of the Exxon/Mobil merger on the West Coast, apparently because GAO's data did not show that Exxon and Mobil posted wholesale rack prices at the same terminals. At least in part, this apparent lack of competitive overlap reflects the relative thinness of posted rack sales on the West Coast and the differences in Exxon's and Mobil's marketing operations.

divestitures essentially *eliminated* the competitive overlap between Exxon and Mobil in gasoline marketing in New England and the mid-Atlantic states south to Virginia (all in PADD I), and eliminated marketing overlaps in parts of Texas (in PADD III). Particularly with respect to branded prices, we strongly suspect that the GAO report's finding of higher wholesale prices following the Exxon/Mobil transaction can not be explained by the merger.[31]

Robustness Testing

It is standard practice in an event study to vary the length and timing of the pre- and post-event windows to ascertain the robustness of the results. If the results of the estimation vary significantly when the windows are changed within reasonable limits, the estimation does not provide a basis for reliable conclusions. GAO acknowledges that it did not undertake robustness checks using windows of different lengths, and acknowledges that the lack of such testing limits its results.[32]

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[31] Given the GAO report's emphasis on concentration in PADD-level refinery capacity, it is worth highlighting that at the time of the merger neither Exxon nor Mobil had a refinery in PADD I. Both had refineries in PADD III, but their combination did not significantly increase refinery capacity concentration. According to our analysis of EIA data on refinery capacity as of January 1, 1999, the merger of Mobil's and Exxon's refineries increased PADD III concentration as measured by the Herfindahl-Hirschman Index (HHI) from 586 to 700. Taking PADDs I and III together, the merger increased concentration from 520 to 600. Moreover, these statistics do not reflect the additional competitive constraints imposed by imported gasoline. No practitioner or scholar who is knowledgeable about antitrust would conceive that such levels of HHIs could lead to competitive problems.

Note, however, that concentration based on refinery ownership does not reflect any contractual arrangements between different refiners, such as refinery gate supply contracts or exchange agreements. In some instances, such contractual arrangements may be important to the analysis of competitive overlaps at the refinery or marketing level.

[32] GAO report at 140. Moreover, as the Commission staff enclosure with the Commission's August 2003 letter to GAO (at 15-17) explains, results reported in the August 2003 draft were not robust in many cases. As noted in Chairman Muris's statement of May 27, 2004, the results in the final report appear more robust simply because alternatives that were in the draft report were not presented.

The GAO report also asserts that the effects of a merger can be reasonably determined with its post-merger windows, which are as short as six months.[33] This is doubtful. Event studies typically use post-merger windows long enough to allow merging firms to capture any efficiencies and to allow competitors to alter their behavior to take advantage of any increased market power in the post merger environment. If more than six to twelve months are required to realize efficiencies fully, GAO's method will not capture merger efficiencies or will attribute them to the wrong merger. Recent economic research suggests that it may take merging firms a number of years to realize efficiencies.[34] Similarly, more than six months may be required for firms to reach and act on terms of anticompetitive coordination. Researchers typically assess such timing issues by examining the effects of a merger using a range of window durations. GAO did not do this.

Conclusion

As indicated above, we have very serious concerns about the soundness of the analyses presented in the GAO report. We have highlighted issues that lead us to that conclusion.

The GAO report does not address the effects of concentration or mergers on *retail* pump prices. This is important because a number of studies have indicated that wholesale price effects are not necessarily indicative of retail price effects.

In addition, GAO believes, incorrectly, that the inclusion of only two control variables--national refinery capacity utilization and PADD-level inventory holdings--are sufficient to isolate the effects of concentration and mergers on wholesale gasoline prices. Our analyses indicate that

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[33] GAO Report at 213.

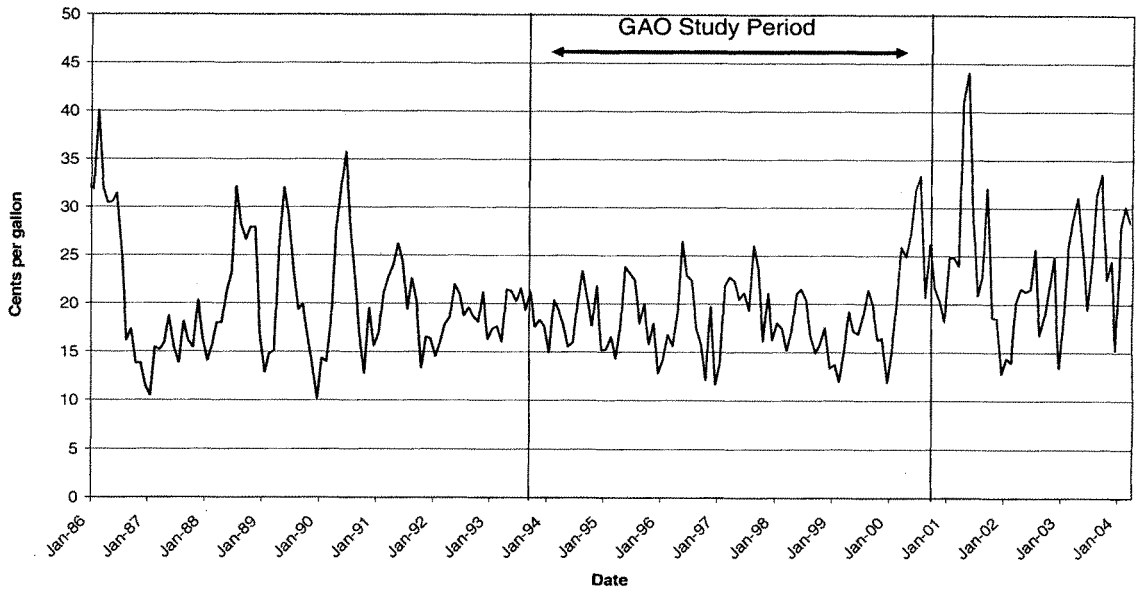
[34] See Focarelli, D. and F. Panetta, "Are Mergers Beneficial to Consumers? Evidence from the Market for Bank Deposits," *American Economic Review*, 93(4), September 2003, pp. 1152-1172.

it is necessary to control for several other important variables.

Furthermore, the GAO price-concentration study makes no attempt to measure concentration--the key explanatory variable in the analysis--in any properly defined competitive market. Finally, the results of merger effects analysis are very mixed and frequently contrary to expectations.

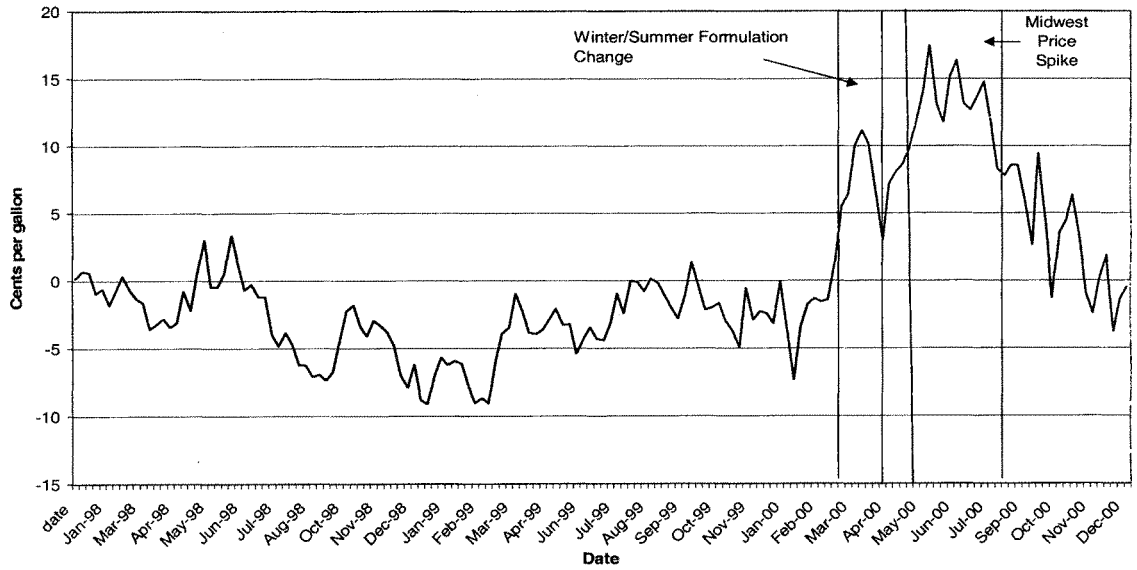
As a consequence of these many problems, the GAO report does not provide a reliable foundation for conclusions regarding the effects of changes in concentration or past mergers on prices in the petroleum industry.

Figure A-1
National Average Regular Gasoline Wholesale Price by all Sellers minus West Texas Intermediate Crude Spot Price, Real 2000 dollars (monthly), Jan 1986-Mar 2004



Sources: Energy Information Administration, Bureau of Economic Analysis.

Figure A-2
Boston Reformulated Average Gasoline Rack Price minus WTI Crude Spot Price Controlling for GAO Report Variables of National Refinery Capacity Utilization and Ratio of Inventory to Expected Demand, Current dollars (weekly), Jan 1998-Dec 2000



Sources: Oil Price Information Service, Energy Information Administration and Bureau of Economics.

Mr. OSE. I thank the gentleman.

All right. As I indicated earlier, what we'll do is, each of the Members up here has an opportunity to ask questions. We'll move in 5-minute increments. We are scheduled for six votes this morning on the floor some time—it actually might not be this morning. Sometime between 12 and 12:30. We also have a second panel of witnesses. We are required to be out of this room by 1:30.

Just for everybody's edification, to the extent that we have questions that need to be asked that we don't get to, we will leave the record open and submit them to the witnesses in writing, leaving the record open for 10 days.

Does anybody up here have any questions on that?

All right. I will go ahead and start.

Mr. Maddox, I want to ask you about this Strategic Petroleum Reserve. I've spent a lot of time looking at the suggestion about drawing down the 105-odd thousand barrels a day that is otherwise going into the reserve. If that 105,000 barrels a day, as some have suggested, were not going into the Strategic Petroleum Reserve, where would it go? What would we be able to do with it? I mean, how does it get to market?

Mr. MADDOX. Well, the process is pretty straight forward. If we were not drawing it down, or filling a reserve, I guess is the question, the oil would be sold on the market.

What has traditionally happened, looking at some of the other examples, is, we see most of that oil simply displace imports. Times like right now, when you have a healthy storage or average storage level of over 300 million barrels, there is not necessarily a crude shortage at this point. So, any release would not necessarily impact, you know.

Mr. OSE. Before you leave that point, I think you—did you just say there is not a shortage of crude?

Mr. MADDOX. Correct me if I'm wrong, but, our stocks are in the average range right now, and we, in fact have, right now, a very tight refining capacity at 96 percent, which is pretty close to flat out. And to go much higher, I think you could argue whether it was sustainable to go at a higher level.

Mr. OSE. Well, if I read—somebody's statement here said that the refining capacity in the United States is something like 8.78 million barrels—that's the rated capacity for the refineries around the SPR locations—and that they are running at 96 percent.

Mr. MADDOX. Correct.

Mr. OSE. Which means that 1 percent is 87,000 odd barrels.

Mr. MADDOX. Right.

Mr. OSE. Well, 87,000 and 105,000, that's not, I mean, it seems to me like that's less than what would be necessary to take it to 100 percent. Why can't we take it from 96 percent operating capacity to 100 percent?

Mr. MADDOX. You could, in theory, but the reality is, there are breakdowns. There are, you know, these things, I don't think there's any model that says you can run 100 percent forever.

I mean there's just always the possibility, you know, things happen for lack of a better description. 96 percent, I think most manufacturing people would tell you, is a pretty extraordinary rate of capacity utilization.

So, you could nudge it up a little bit. But, the reality is, we have been building our stocks the last 4 or 5 weeks, and we are filling our stocks while we maintain a pretty steady level of product.

Mr. OSE. So, the storage above ground, if I'm correct, is about 300 million barrels today.

Mr. MADDOX. Right.

Mr. OSE. The Petroleum Reserve has about 660 million barrels in place. Are you suggesting that, if the 105,000 barrels that's currently going daily in to the SPR was not going into the SPR, there'd be no place to put it?

Mr. MADDOX. Individual companies have to make economic decisions on how much stock they want to carry. Right now, the high price environment, I don't think they'd be too eager to build stocks and create the carrying costs involved with the larger stocks.

Mr. OSE. Mr. Caruso, does the EIA concur with those conclusions?

Mr. CARUSO. Yes. I think Mark's point about there not being a shortage is different than not saying it's a tight market. Clearly, there are 305 million barrels of crude in stocks now.

Mr. OSE. Explain your nomenclature. Your vernacular is very good. I think it's very precise. Would you please explain the difference between not a shortage of crude and a tight market?

Mr. CARUSO. That's crucial, actually, to the decision and the memo that I wrote in February. And, that is that all refiners who are seeking crude can buy it today at $39 WTI. So there is crude available to refiners. If 100,000 barrels a day were made available, would they add that to inventories? Our view is probably not.

Mr. OSE. Is it your view that the constraint is the refining capacity?

Mr. CARUSO. There's two aspects of the refining capacity. One is primary distillation, which is running at 96 percent of the 16.8 million barrels per day total capacity in this country. Second, there are the conversion units that go beyond the primary distillation. We believe that those are operating at close to 100 percent of capacity.

So there are two aspects. One is the primary distillation, and then there's the secondary conversion or treatment units transform distillation unit outputs into gasoline and other products. And, right now, they are operating these margins very close to full capacity.

Mr. OSE. Thank you.

The gentleman from Massachusetts.

Mr. TIERNEY. Thank you. Just to close out on that, the Valero Energy Corp.'s chief executive officer, William Greehey, opined that if the President stop purchasing for the oil reserve, it would signal to the commodity traders that the White House is serious about oil prices and the prices would fall fast.

Is there any merit to the concept that signal would be sent and it would have an effect on prices, Mr. Maddox?

Mr. MADDOX. We don't believe so. I mean, I think we have some estimates that stopping may have an effect, I think, of a dollar a barrel or so. But, I would note also that we saw the price swing $1.26, I think, yesterday. At this stage it's largely a supply uncertainty situation that is probably driving prices to a greater degree. I think the Secretary stated yesterday that he thought there was

probably a risk premium of potentially as high as $10 right now for the price of oil. And, I think events will probably drive that issue.

Mr. TIERNEY. Mr. Kovacic, you know, rather than challenging Mr. Wells' organization to sort of a fact and figures dual of some sort do you think it would be well spent time of the FTC to do an actual report and study about the effects of mergers?

Mr. KOVACIC. We are in the process of completing a report that does look at the consequences of mergers, that does update two other studies we have done. And, we do think it's useful to engage in a continuing conversation with the GAO.

Mr. TIERNEY. Well, I'm sure it is. We had asked for any studies that you had done on that, and I don't recall getting them from your office. So how long ago were those studies done?

Mr. KOVACIC. One in 1987 and one in 1989, and we are in the process of doing a further document that updates the results of those studies, sir.

Mr. TIERNEY. Are you familiar with the March 2001 Federal Trade Commission report that was authored by Chairman Robert Pitofsky? And he noted in that study, by withholding supply, the industry was able to drive prices up and thereby maximize profits.

Mr. KOVACIC. That's right. Are you referring to the Mid-western States Study, Congressman?

Mr. TIERNEY. That's correct.

Mr. KOVACIC. Yes. I believe that the FTC report also pointed out that the capacity to act in that way was for a comparatively short period of time as well. And I believe that the net assessment of the Commission is that, though it takes temporary disruptions quite seriously, that this was indeed a temporary and quite finite disruption.

Mr. TIERNEY. Are you familiar with the 2003 RAND study of the refinery sector that reaffirmed the importance of the decisions to restrict supply? And, it pointed out, in a change in attitude in the industry, saying that increasing capacity and output to gain market share or to offset the cost of regulatory upgrades is now frowned upon. In its place, we find a more discriminating approach to investment and supplying the market that emphasized maximizing margins and returns on investment rather than on product output or market share. The central tactic is to allow markets to become tight by relying on existing plant and equipment to the greatest possible extent, even if that ultimately meant curtailing output of certain refined products.

Mr. KOVACIC. Yes, indeed. I'm also struck, though, in the very same study, toward the beginning of the study, you see the basic conclusion by the RAND researchers that the supply system in the United States operates comparatively well. Their net assessment was relatively positive.

I guess another methodological point that interests me about the RAND study is that they report in a very aggregate way the results of all of their research. Something that would have been interesting to us is to see precisely whose views factored into the observation that you provided.

Mr. TIERNEY. Well, I guess that's true in any study, where you go back and forth. So, what you are saying is, you are going to

stick to your story no matter what it says so long as you can find a methodology to support it?

Mr. KOVACIC. Well, I guess maybe it's an academic's obsession with footnotes. But when you look at the RAND study, you simply notice that they tell you who they spoke with at the back. But, as they hit key conclusions along the way, there is no particular revelation of whose observations factored into the results.

Mr. TIERNEY. So, you are not troubled at all by the fact that there have been a sizable number of mergers over recent years?

Mr. KOVACIC. We are extremely attentive to and extremely concerned about the impact of those mergers. I have to be clear, Congressman, that in addressing the GAO's work and ours, the GAO's instinct here—and your observation as well—about the usefulness of ex-post evaluations as a way of informing future policymaking strikes me as being right on target. It's a key element of responsible decisionmaking, before you take next steps, to go back and look at what you have actually accomplished. And, the effects, good or bad, ought to be well-known. So, I emphasize, that's a crucial ingredient of good policymaking, and I don't want to diminish in any way the value of that kind of assessment.

Mr. TIERNEY. I would hope not. And, I would hope that the FTC starts looking at your merger guidelines a little more actively and get on top of this, because I think it just stands to reason that the GAO's conclusions are right on the money in terms of the direction of the things that are going on. I think it belies commonsense to think that all these mergers haven't had an effect. And, particularly—and I don't have time to go into it now because we are going to close out—but you look back at Senator Wyden's committee hearings of a while back, when you have industry people actually quoted on there saying that keeping the supplies low is a good strategy for them to keep their prices high. Those things, I hope, ought to concern the FTC and ought to spark some sort of report on that and some concern for the mergers and consolidations. Thank you.

Mr. OSE. The gentleman from Ohio.

Mr. TIBERI. Thank you, Mr. Chairman.

Mr. Holmstead, can you give me the exact number of blends that are required, fuel blends, in America?

Mr. HOLMSTEAD. I believe I can. And, I can understand your question on this issue, because there are all kinds of numbers that are thrown around.

When we talk about boutique fuels, what we talk about are specific State requirements that are different from those required under Federal law. There is RFG that I mentioned. And, RFG actually is different in the North and in the South because of different characteristics. The Federal requirements are major gasoline programs. But, if you look at boutique fuels, requirements by individual States, there are nine.

Now, while I say there are nine, other people are saying 100-something. Well, the difference is, as we have delved into this, a State sets a standard, but then different companies choose to sell different grades of gasoline. So, you have standard, premium, and ultra or whatever they are. In response to that State requirement,

an individual refinery may actually produce three different grades of gasoline or more.

And then, some States have identical standards, but we count those as just one. Some people may count three different States with the same requirements; we are going to count those as three or actually nine. But, we think the best way to look at it is there are nine different State boutique fuels programs. In addition to that, there are federally mandated programs that apply in the rest of the country.

Mr. TIBERI. How many are those numbers?

Mr. HOLMSTEAD. Well, again, different requirements apply during the summer and during the winter. But, the biggest number of gasoline blends is during the summertime season, and there are six Federal requirements. So, there would be six Federal programs and nine boutique State fuel programs.

Mr. TIBERI. Mr. Caruso, would you concur with that analysis?

Mr. CARUSO. Yes. That concurs with our information.

Mr. TIBERI. Thank you.

Mr. Holmstead, in layman's terms, not in technical details, can you explain why Washington, DC, has a different requirement than Chicago, which has a different requirement than Atlanta?

Mr. HOLMSTEAD. In large part, that's because of sort of our Federal system of Government, where the way Congress chose to enact the Clean Air Act was to require in the most highly polluted cities this reformulated gasoline or RFG. And I have to look at a map to see exactly where that's required, but that tends to be required in the most highly polluted areas, New York, Los Angeles, Houston.

Mr. TIBERI. Excuse me, but are the pollution problems different in Washington than Chicago?

Mr. HOLMSTEAD. Yes, they may be. The extent to which cars contribute to the problem is different in Atlanta compared to Baton Rouge where it's much more of a stationary source problem versus a mobile source problem.

The other thing is different States, under the Clean Air Act, have flexibility to decide how they want to achieve national standards. Some States may decide that a fuels program is an effective way of achieving these standards. Other States may believe that a more effective way is to regulate factories and plants and things of that sort.

Mr. TIBERI. Mr. Caruso, have the requirements from States and the Federal Government caused foreign refineries to stop producing refined or reduce the number of refined oil coming into the United States?

Mr. CARUSO. The only instance I'm aware of is the gasoline components we get from Brazil. Most of their refineries cannot meet the new Tier 2 RFG lower sulfur requirement—120 parts per million—starting this year. So perhaps—and this is quite a tentative number—there may have been about 75,000 barrels a day from Brazil that now has to be made up from other sources. And in fact, there have been some increases in other refineries, other foreign refineries, such as Canadian and European.

Mr. TIBERI. OK. One final question, Mr. Holmstead. Has the EPA done any research to see if, technologically, we can produce today one type or maybe two or three types of fuels that can solve our

pollution problem in different cities at the same time of reducing the number of fuels required by a refinery?

Mr. HOLMSTEAD. That is something that we have looked at quite a bit. You won't be surprised to hear that there are tradeoffs. For instance, the cleanest gasoline from an environmental perspective is California's. California gasoline is a blend that exceeds the RFG requirements. If we were to simply mandate that fuel throughout the United States, we would solve our fungibility problem, so everybody would be using the same type of fuel. But that would dramatically increase costs.

And so, if you are trying to reduce the number of blends and improve fungibility, you may actually have an adverse impact, that is on fuel supplies and cost to consumers. There is really no reason for consumers in some States that don't have a pollution problem to pay those kind of high prices.

And so, it's an issue that we are aware of and that we have paid a lot of attention to. But, you know, common sense would dictate, that we have fewer versions of gasoline. There may be some middle ground that would love to explore with Congress. But, there is no one obvious easy answer because there are tradeoffs.

Mr. TIBERI. Thank you.

Mr. OSE. We will go another round here.

Mr. Holmstead, I want to visit with you about California's request for a waiver. If I understand correctly, EPA is concerned about the impacts of air quality of granting such a waiver. And, I impute from that you're concerned about the deterioration in the air quality that might occur. Am I correct in that?

Mr. HOLMSTEAD. That's correct. Yes.

Mr. OSE. OK. The particulate matter. Are you worried about sulfur? What is it exactly that EPA's concerns are based on?

Mr. HOLMSTEAD. This sounds self-aggrandizing, but all of these air pollution problems are very complex, especially in California. The air pollution problems that are of greatest concern are ozone, which you are well aware of, and fine particles. But, these pollutants aren't emitted directly into the air from automobiles. It's not as though you measure ozone or you measure fine particles. These pollutants are made up of many different components.

So, for instance, if you care about ozone levels, you have to consider VOC emissions or hydrocarbon emissions which do come from automobiles. You have to consider NOx. You also consider CO emissions.

And so what we need to—what we have done in the case of ozone is to look at what the air pollution situation would be in California with a waiver and without a waiver. Actually determining what the answer to that is somewhat uncertain because of a variety of factors. We know, for instance, that if you take out the oxygenate, you will increase VOC emissions from the tailpipe. I think everyone agrees with that. On the other hand, if you keep the oxygen in the fuel you may increase what are called evaporative emissions because the oxygenate tends to have a higher Ried Vapor Pressure, and so you get greater evaporative emissions. It's enormously complex to try to understand that, and that's just for the ozone, which is something we have been looking at now for a couple of years.

On the fine particles side, again, there are some fine particles that are emitted directly from cars, but also fine particles are formed by the aromatics and NOx emissions in the fuel exhaust. Trying to actually understand whether the waiver would hurt California's air quality or help it is something that we are honestly struggling with right now.

So, it's a difficult issue and especially given that the statute says that we can only grant the waiver if a State makes a showing that the oxygen requirement is interfering with their ability to maintain the standard. So, it's something that we have taken seriously, and we are really trying to get a handle on these issues.

Mr. OSE. Now, under the Tier 2 program, do you have—it's being phased in. Obviously, you have similar concerns, in particular, removing the sulfur from the fuel.

Mr. HOLMSTEAD. Right.

Mr. OSE. The question I have is that, while we haven't been able to get an affirmative or definitive response on California's request for waiver from EPA, EPA has in fact granted six hardship waivers to refineries who otherwise can't meet the Tier 2 phase-in requirements for sulfur. It's on page 3 of your testimony here. You have four bullet points, the last of which, "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."

Where are those six refineries located?

Mr. HOLMSTEAD. Well, I'm not sure. I would be happy to provide that for the record.

Mr. OSE. Are any of them located in California?

Mr. HOLMSTEAD. My expert tells me, probably not.

Mr. OSE. Are any of them located in Chicago or up in the New York area?

Mr. HOLMSTEAD. I don't know the answer to that.

Mr. OSE. I would be curious. I will submit that to you in writing.

Mr. HOLMSTEAD. I would be happy to provide that for the record.

[The information is provided in EPA's answers to Chairman Ose's followup questions.]

Mr. OSE. Well, my basic question, and it may be rhetorical at this point, is, how can you be so concerned about air quality in California to the extent that we can't get an answer from you one way or another, and yet here are six refineries that can't remove the sulfur in a manner consistent with the Tier 2 phase in, and you are granting them waivers? There is a certain inconsistency there.

Mr. HOLMSTEAD. Well, no. It's a very different situation. The Tier 2 program is something that EPA created through regulation. The oxygen mandate is a specific statutory mandate from Congress. And, Congress said that we can only grant a waiver if a State makes a showing that the oxygenate requirement interferes with its ability to attain air quality.

So, you are right. Under our Tier 2 program, if there is a hardship at a refinery, we can grant that, even though it would have a modest negative impact on air quality. We are not able to do that in the case of the oxygenate waiver because that's a statutory requirement.

Mr. OSE. Both of them have the force of law, do they not?

Mr. HOLMSTEAD. Well, they do. But, our regulations explicitly allow us to grant this hardship waiver. If the statute had contained a provision similar to our regulations that would allow us to grant hardship waivers, then we would consider them both in the same way. But, it's just a very different legal regime in the case of oxygenate requirement versus the sulfur reduction requirement in the Tier 2 program. And, I can understand your——

Mr. OSE. It seems to me you need to resolve the chemistry issue here as to whether or not the evidence that California has put forward in fact is consistent with EPA's desire for protection of these different elements that you cited, whether it be ozone or a particulate matter or what have you. That's the key element here.

Mr. HOLMSTEAD. What——

Mr. OSE. What I'm trying to get at, is, when are you going to finish that?

Mr. HOLMSTEAD. We have a group of people that are working on that right now. The State provided us with significant additional information in February. Just within the last month or so, we received a very detailed technical report from an outside stakeholder group that was concerned about these issues. And that's what we are looking at right now. And we will resolve it as quickly as we can.

Mr. OSE. If I am correct, you are under a court order to do so. Is that not accurate?

Mr. HOLMSTEAD. I don't believe we are under any specific court order. What the court did was they remanded—initially, when we had done this analysis——

Mr. OSE. They vacated the original.

Mr. HOLMSTEAD. They vacated the original, and they sent it back to us. They said, "You have to look at this fine particles issue," which we hadn't looked at before. So, this is an issue that we had never really looked at, and now we are looking at it.

But, the court didn't give us a specific date. They just said that it's—that when we come back and make the decision, we have to also look at fine particles as well as at ozone.

Mr. OSE. I'm here to ask you—I understand the time element, and I appreciate the courtesy of my fellow Members here. I am asking you——

Mr. HOLMSTEAD. I keep hoping they are going to cut you off.

Mr. OSE. They are not going to cut me off. Trust me, they are not going to cut me off. So, I am here to ask you again, do you have a date by which this is going to be completed?

Mr. HOLMSTEAD. We don't have a specific date. As I said, we received a significant new technical comment document just in the last month or so, and that raises a number of issues that we are still looking at. What my boss has said is, we are going to do this as quickly as we can.

Mr. OSE. I can tell you why they are not going to cut me off, is because the same issues on waivers in California are creeping up to Massachusetts and over to Ohio.

So, this is not something that's unique to California. This is timely. It needs to be done. It sounds to me like you actually do

have a court order to at least review your decision, and yet we can't seem to get the thing done.

So, back to my original question. What kind of time line are we working under?

Mr. HOLMSTEAD. I can understand your concerns, and we have obviously heard from the Governor of your State and the members of the delegation. We made this decision now over a year ago, and the court overruled it, not because they said we were wrong on the technical side but because they said we also have to look at fine particles.

And, honestly, we want to just make sure that we do this right. It's an enormously complex undertaking that we are committed to doing the right way, and that's what my boss has said, and we will do it as quickly as we can.

Mr. OSE. What does that mean, as quickly as you can?

Mr. HOLMSTEAD. That means as quickly as we can while ensuring that we actually get it right and do something that will be consistent with the statute that Congress has required and that will stand up in court as well.

Mr. OSE. I'm just amazed to find that the courts are moving faster than the Federal Government. That just befuddles me. And, I have to tell you, I'm highly critical of the inability to get to an end on this.

The gentleman from Massachusetts.

Mr. TIERNEY. I feel your pain.

Mr. Wells, let me ask you a little bit about your study, if I could. Why was your study focused on wholesale prices and not on retail prices?

Mr. WELLS. First, let me say to, Mr. Chairman, you are 100 percent. That's why I wasn't a boxer; I didn't know the difference between my right and left. And I will work on that.

Clearly, as I said earlier, we focused on the wholesale price because of two major factors: Wholesale prices tend to be passed on through to the pump at the retail level. And, second, in terms of our ability to look and assess what data is available in the Federal Government to assess, there is less data that's available in the retail sector. The retail sector is much more complex in terms of the factors that can influence gasoline prices. So, we thought a good proxy is to look at the wholesale level, which deals with the actual prices paid as the gasoline is moved from the refinery into the retail market.

Mr. TIERNEY. Did your study differ from any previous studies?

Mr. WELLS. Absolutely. Clearly, we went to the FTC and asked: Had you done a retrospect analysis? They said, no. We asked for what public studies they had done. Essentially, we got nothing. The only study we are aware of was released in March just before our report came out. It was done in Louisville, KY. It was one city analysis.

It's interesting to note, their analysis showed that wholesale prices also went up, and I believe the retail prices either stayed the same or might have decreased a little bit. But, again, it was only one study.

The GAO study, we believe, is much more comprehensive. We looked at the cumulative effects of the many thousands of mergers.

We isolated the different types of gasoline, which, in many studies, had not been done. We focused and isolated on cost margins. We basically looked at and subtracted out, if you will, or accounted for everything that could have affected a gallon of gasoline so that what remained was some sense of what we attribute to market power related to the actual cost of the factor of the merger itself.

So, we believe our study was—nationwide, we have not found any study that had done what we had done.

Mr. TIERNEY. Now, I take it, Mr. Kovacic, just a little bit here in indicating that you didn't—the FTC didn't do any studies or whatever, but you are quick to criticize the GAO's.

So, Mr. Wells, they say that your study is flawed. What have you done to address the concerns, which I understand were extensive?

Mr. WELLS. They clearly gave us 30 pages of comments of why they didn't like our study. I think it is fair to say, they feel strongly.

We feel as strongly as well that we in fact did use sound economic principles; we did use factors. They, lately—I mean, just today, we heard there is still an additional three criticisms of factors that we did not consider. In consulting with our Chief economist, we find that we did in fact use those variables. So, maybe it's a dialog issue that GAO would welcome.

I think, more disturbing to me is sort of the impression the FTC has given us. It sounds as if they are spending a lot of time and energy criticizing everyone else that has looked at this marketplace. We would hope, in the spirit that we would want to move into, that maybe the FTC wants to move beyond our methodology is wrong and their methodology is right —ours is different, it's different than what they used. Hopefully, in there somewhere must be lessons learned in terms of what the FTC may be able to do better.

And, again, I think the focus we have is, market power is extremely important and is something we as consumers want to ensure that someone is protecting us from market power. We clearly don't want another Enron situation. So, we are in favor of hoping that the FTC will, in fact, look at a retrospect study, look at how well their performance has been, could they do things better?

Mr. TIERNEY. Well, I would agree that seems to be their job, and that it doesn't seem to have been done yet on this. But did you have a peer review done of your study? And who did you talk to about your study within the industry?

Mr. WELLS. Absolutely. We had at least a dozen peer reviewers. University of California, Yale, Texas, industry consultants. We talked to law firms. Four major integrated oil companies. In fairness, some oil companies refused to talk with us. We did speak with exploratory and production companies. We talked to four refiners, 24 independent distributors, three Federal agencies, two State agencies. The list goes on and on, 16 associations. We talked to the hypermarket people, the unbranded retailers.

We actually went out and bought data. There's no data—we didn't find data at the FTC. They gave us no data. The data that we bought is—some of it is data that's collected by private sources. We spent a lot of money buying this data. There is an issue about whether we should share data. There are a couple issues. One,

there are some restrictions about these rack prices, wholesale prices, their information that belongs to the people that we bought it from. Some of the data we used, we only gain access to their data so that we can actually turn a switch on, look at the data, and the switch gets turned off. So that type of data is not releasable to us.

In terms of Bill's suggestion that GAO and the FTC would be willing to work together, I clearly would like to run this by for institutional approval. I think it's a great idea. We would love to have a conference. We would love to put the brains in the room and have a conference and talk about methodology and talk about what data may be available. We would welcome that.

Mr. TIERNEY. Look, if Mr. Kovacic wants to insist on you giving information and you want to give it, I recommend you hire Dick Cheney's attorney, and then you can keep it from him, you won't have to worry about giving it to him.

Let me just wrap up here by asking Mr. Caruso a question. I am going to put on the record here, the EIA did an analysis of the administration's energy legislation. And am I correct in asserting that the finding of that analysis was that the impact of the bill on gas prices would be negligible?

Mr. CARUSO. The EIA analysis of the Conference Energy Bill only looked at those components which we could quantify and analyze use in our National Energy Modeling System. The results that you are referring to concerning negligible effects on prices—are limited to those components. With that clarification, you are correct.

Mr. TIERNEY. Thank you.

Mr. Chairman, I yield back. Thank you.

Mr. OSE. The gentleman from Ohio.

Mr. TIBERI. Thank you, Mr. Chairman.

Mr. Holmstead, just a few more questions on the boutique blends. I represent a district in Columbus, OH. And, my understanding is that there are different requirements, blend requirements in Detroit, Pittsburgh, Chicago, in our region. In your opinion, if Columbus is experiencing a shortage of gasoline supply over the 4th of July weekend, what is the cost of providing—or is there additional cost in providing gasoline to Columbus because of the fact that Columbus has a different blend than Chicago, Detroit, or Pittsburgh if they had an extra supply, additional supply? I guess the question would be, is the price fungible or the gasoline fungible with respect to those different markets?

Mr. HOLMSTEAD. I don't know enough about the requirements. I know specific markets. But, I can say that is an issue we are concerned about. Because of the different State requirements, if there is a supply disruption, if a refinery goes down, if there is a problem with a pipeline, then if all gasoline were the same, it would be relatively easier to shift from one market to the other.

The way it works now is, if the requirements in Columbus are equal to or less stringent than the requirements in Chicago or Detroit, they can use that gasoline because that gasoline may well meet the requirements in Columbus. There is a degree of fungibility there, but it's not completely fungible. And, I think that is an issue that people are concerned about.

Our studies have shown that, again, as long as everything works well, that the pipelines run the way they are supposed to and the refinery is up and running—which is the case the vast majority of the time—then we don't see significant problems with these different fuel blends. And, in fact, when there is a disruption, we do have the ability under our regulations to grant temporary waivers. And, again, this is quite different from the California situation.

We have done that; where there has been a refinery fire, where there has been a problem, we have granted temporary waivers.

Mr. TIBERI. You have granted waivers?

Mr. HOLMSTEAD. Yes, we have granted those waivers where there are specific supply disruptions. So, I guess I agree that there are legitimate concerns about the balkanization of the gasoline market.

We believe that we have done what we can now to maximize the flexibility we have under current law, but it is something that we would continue to look at.

Mr. TIBERI. Don't those requirements—you made a statement in your written testimony that the—in fact, you even reiterated it in your oral testimony, that environmental regulations have had minimal effect on gasoline prices. Wouldn't it be true that prices have had an impact or there have been impacts on prices in markets where there is a different brand or different blend required that's not as open on the marketplace? Meaning, if a specific blend is required in Chicago, isn't that going to increase the gas since the supply is narrower for Chicago than the rest of the region?

Mr. HOLMSTEAD. Typically, what our studies have shown is that when a State is going to adopt a requirement like that, we encourage them to have a collaborative process where they work with the refiners and the environmental community, and to try to understand the kind of gasoline that refiner, given its equipment, given its feedstock, can readily supply to that market. Is there a cost? The answer is, yes, but it's typically, you know, a pennies per gallon kind of cost.

The real problem comes when the refineries that typically supply that market have a disruption, and whether, you can bring in fuel from another refinery that doesn't typically supply that market. And that's where the real concerns about price volatility have come up. Again, we try to address those where we are aware of them.

I mean, I can tell you we go in sort of full red alert mode. We have a group of people who, when there is an issue, which happens a couple times a year, immediately assesses the situation. We talk with our colleagues at DOE and EIA to determine whether, given the circumstances, we ought to do some sort of a temporary waiver. And, we have done that to try to address those concerns.

Mr. TIBERI. OK. Switch gears. Mr. Maddox, Secretary Maddox, just trying to get some clarification on this issue. When President Bush announced in November 2001 his goal of filling the SPR to capacity, the Energy Department said that "the SPR is intended in the short run to smooth out price hikes."

That was the quote from the Energy Department. When and why did the policy change?

Mr. MADDOX. I think the fill policy was developed to have minimal impact in the markets, and that was how the schedule was de-

veloped. We've tried to maintain a level, with a few exceptions, between 100,000 and 150,000 barrels a day. And, so I think probably the reference was to that. I don't know the full quote and context. But, that's always been our goal, to fill it in such a manner that it did not disrupt the market or did not create stress on markets.

As you said, I think it's less than 0.2 percent of 1 percent, which is real world, kind of rounding error on an 80 million barrel-a-day global market. I think that's generally been the strategy. I think that's probably what they are referring to, lacking other context.

Mr. TIBERI. Under statutory language, under current law, just to followup, a drawdown of the SPR may occur—may not be made unless the President finds that a drawdown and a sale are required to respond, prevent, or reduce a severe energy supply interruption. And, I'm sure you are familiar with that.

Mr. MADDOX. Yes.

Mr. TIBERI. Given the criteria and the current situation, does the President have the authority in your opinion to drawdown the SPR at the current time?

Mr. MADDOX. No. Right now, as we talked earlier, there is oil on the market out there at a price, and people are getting it. Our stocks are close to the average level. There is no disruption.

There is a great deal of potential for disruption right now as there are a number of hot spots in this world right now—that produce oil that the United States uses and the world market uses. But right now, there is no disruption, per se.

Mr. TIBERI. Do you think that when President Clinton released oil from the reserve in September 2000 when prices were about $37 per barrel, that there were circumstances that allowed him to do that?

Mr. MADDOX. To my knowledge—and, Guy, you can correct me—I'm not aware of any disruptions at that time.

Mr. TIBERI. You would agree that, by Christmas of that year, oil prices had dropped to about $22 per gallon?

Mr. MADDOX. I will take your word on that.

Mr. TIBERI. Mr. Caruso, are you familiar with that situation?

Mr. CARUSO. Yes. At the time, I wasn't in Government, and I was asked that same question. And my answer was, "no." I didn't think there were the appropriate circumstances.

Mr. TIBERI. Why do you think—what circumstances led, in the world or in America, prices of oil to go down to $22 per barrel by Christmas of that same year?

Mr. CARUSO. I think it was largely the result of demand being weaker and the additional supply put on the market by OPEC countries. My recollection of the actual data is a little bit sketchy. But, that's my recollection of that.

Mr. TIBERI. Back to Mr. Maddox.

Assume we all agree that the strategic petroleum reserves should not be tapped, was it prudent to say so publicly, in your opinion?

Mr. MADDOX. I believe so. I think one of the things we are trying to do is to create certainty in the market's decisionmaking, and I think adding more variables to market decisionmaking with people trying to make long-term plans on prices is kind of counterproductive to an efficient market.

There are enough variables right now in trying to decide at what price and how much oil to buy. I don't think trying to outguess the Government or trying to predict what the Government is going to do makes that job any simpler. And, in fact, it will create more risk for people who are trying to build stocks and make prudent decisions.

Mr. TIBERI. Mr. Maddox, would you concur that the No. 1 issue affecting gas prices today is the cost of crude oil?

Mr. MADDOX. Yes.

Mr. TIBERI. Mr. Caruso.

Mr. CARUSO. I would say that's the No. 1 issue, yes.

Mr. TIBERI. Mr. Holmstead.

Mr. HOLMSTEAD. Yes. That's our view as well..

Mr. TIBERI. Mr. Wells?

Mr. Wells. I agree.

Mr. TIBERI. Last but not least?

Mr. KOVACIC. Yes, it is.

Mr. TIBERI. Thank you. Mr. Chairman, I yield back.

Mr. TIERNEY. Would the gentleman yield for just a second.

Mr. TIBERI. I yield, Mr. Chairman.

Mr. TIERNEY. I want to clarify just one part of that. I understand the gentleman's point with regard to the statutory language, that the President may not have the authority to take oil out of the Strategic Petroleum Reserves.

Mr. Maddox, do you think there is any statutory prohibition against the President not continuing to fill it at any time, not adding oil to it?

Mr. MADDOX. To my knowledge, there is not.

However, I think there are policy implications and negative impacts to not being consistent in your approach to filling the reserve.

Mr. TIERNEY. That's consistent with what your comments were about that earlier.

But there is no statutory prohibition about somebody making the decision to not keep filling oil at a particular level?

Mr. MADDOX. I don't believe so.

Mr. TIERNEY. Thank you.

Mr. OSE. I have here a copy of the GAO's study.

Mr. Wells, I know that in these studies, at least in previous reports on different subjects, I have always found the assumptions under which the study was done, and I have looked through the table of contents, and I can't find them. Do you offhand remember where they are?

Mr. WELLS. I'm sorry, I didn't hear the question, Mr. Chairman.

Mr. OSE. I'm looking through your study. And, I know, in previous GAO studies, there have always been sections that highlight the assumptions under which GAO does their work. I can't find those here.

Mr. WELLS. We have a scope and methodology section that would describe the process that we use to build the study, and the entire number of appendix, I believe it is No. 4 that goes into quite a lot of detail, the econometric assumptions that were used in how we built the model, page 110.

Mr. OSE. Actually, 122, I believe.

While we are doing that, Mr. Kovacic, what mergers has FTC looked at since 2000? I think Mr. Tierney asked a fair question earlier, that your studies or the analyses that are in front of us today stop at the year 2000. Have we had mergers that have occurred since then?

You can take us through the complexity of the HHI analysis, if you wish. But my concern here is that, I know you guys are pretty vigilant, I just want to get on the record that you have in fact looked at such mergers as may have occurred. So if you would share that with us, I would appreciate it.

Mr. KOVACIC. Yes. Since 2001, there have been several significant transactions that we have examined. And if you could bear with me for a moment so that I have the count. A couple of those we have mentioned this morning already. The commission did examine Chevron's acquisition of Texaco in 2001 and demanded a significant number of divestitures associated with that transaction. We did look at Valero/UDS which also was permitted to proceed on the condition that a number of substantial divestitures be made.

Phillips/Conoco in 2002 also was the subject of close FTC review, and that transaction was permitted to proceed with significant divestitures, including refinery and terminal assets.

And, Shell/Pennzoil Quaker State in 2002 is the last of the transactions in which the Commission took action.

There have been other mergers in which the FTC did examine the transaction in detail and did not act. If my random access memory can summon them on the spot, I believe one was Phillips/Tosco. If I could turn to my colleagues for a second. Sunoco/Coastal is another transaction that we examined and did not intervene.

If I have missed any, Mr. Chairman, I will be sure to complete the list for you in writing.

In each of these transactions—and this does relate to the point of the Commission's work in doing studies—we do exhaustive, case-by-case examinations of each of these transactions, and we look at them in a considerable level of detail. Over the course of doing those reviews, our basic aim in most instances is to avoid net increases in concentration. So we look very carefully for overlaps.

And, I would say that, even though we have not attempted the sweeping kind of empirical assessment that Mr. Wells referred to, it's the process of doing the exacting assessment of competitive effects in each of those markets and looking at the institutional arrangements that govern the way in which refining and distribution takes place that gives us the great concerns that I have expressed about the GAO study.

Mr. OSE. I want to dwell on that particular aspect of this, Mr. Wells. And I need to have you be willing to chime in here. If I understand, the study that GAO did, you focused the analysis on the pads, the seven pads across the country.

Mr. WELLS. That is correct.

Mr. OSE. If I understand what FTC does, it's not based on the pads but perhaps the unique markets within the seven pads.

Mr. KOVACIC. Precisely. One of our fundamental concerns with the GAO study is that, in many ways, they are using this measure of concentration, refining concentration at the PADD level. Based on our examination, transaction-by-transaction, over the past 20

years where we have been principally responsible for reviewing mergers, that's not an acceptable proxy.

Mr. OSE. It would be of immense help to those of us charged with responsibility of making decisions on these issues to have you all resolve the difference. I mean, it would be helpful to us for you guys to get that methodology agreed upon.

Now, the other question I have is that Mr. Holmstead indicated that the gasoline is fungible in certain directions but not in other directions. In other words, if your gasoline, say, in Chicago, the standards of that gasoline may well be higher than the gasoline available—I think Mr. Tiberi's example was Columbus, OH. So it's fungible from Chicago to Columbus, but it may not be fungible from Columbus to Chicago.

And it strikes me that most of the boutique fuels we have in this country were designed to fit highly urbanized areas, which happens to be where most people live, which happens to be where the markets are the largest, which happens to be where the most fuel is sold. So it seemed to me that we need to resolve this issue of the impact of the fungibility of the fuel. I think you'd probably contend that it affects things. I'm not sure that would be the same position that you have at GAO.

Mr. WELLS. The position we found in our modeling clearly when you—because we tried to delineate and separate conventional gasoline and reformulation gasolines and boutique gasolines. And, I believe, in almost all cases, the reformulation in boutique had greater cost implication impacts. So, there is differences between the gasoline in terms of the impacts to the mergers, as the econometric model pointed out.

Mr. OSE. I think there are differences. And, I'm trying to resolve whether or not one of the assumptions in your study, if I read one of the comments here correctly, may have been that the gasoline is largely fungible. I'm not sure that's the case. I will send you a question in writing so you can clarify that.

I have no further questions for this panel.

Mr. Tierney.

Mr. TIERNEY. Thank you, Mr. Chairman.

Mr. Kovacic, I want to revisit an area. Are you familiar with Senator Ron Wyden's report that was filed June 15, 2004?

Mr. KOVACIC. I am, sir.

Mr. TIERNEY. It's entitled, "Campaign of Inaction: The Federal Trade Commission's Refusal to Protect Consumers From Consolidation, Cutbacks, and Manipulation in America's Oil and Gasoline Markets."

Mr. KOVACIC. I am familiar with it.

Mr. TIERNEY. One of the points made is that, of course, the FTC is not taking action to stop Shell from shutting down its refinery in Bakersfield even though the agency had previously required Texaco to divest this refinery in order to remedy what it found to be a likely anticompetitive impact of the Chevron Texaco merger. The shutdown would eliminate the competitive benefit from the divestiture that the agency requires.

If I read this right, Texaco wanted to merge with Chevron. The FTC then required that Texaco divest itself of the Bakersfield refinery, because if they didn't do that, it would be a likely anti-

competitive impact. Yet, no sooner had Shell had that refinery in place, it now looks as if Shell is intending to close a 70,000 barrel-per-day refinery in Bakersfield even though the company records show the refinery is currently profitable. The Shell documents showing the refinery profits are attached to the report of Senator Wyden.

Shell's announcement of its decision to close the Bakersfield refinery claimed that "there is simply not enough crude supply to ensure continued operation would be economically viable." But recent news articles have reported that both Chevron and Texaco and State of California officials estimated that the San Joaquin Valley, where the Bakersfield refinery is located, has a 20 to 25-year supply of crude oil remaining. In fact, the Bakersfield California reported that, on January 8, 2004, that Chevron Texaco plans on drilling more than 800 new wells in that valley this year, which is 300 more new wells than last year. The fact that Texaco, Shell's former partner in the Bakersfield refinery, is increasing its drilling in the area calls into question Shell's claim that a lack of available oil supply is the real reason for closing the Bakersfield refinery.

Another reason to question Shell's claim about the availability of crude oil is the fact that Shell is currently the subject of an investigation for misstating its crude oil reserves. Despite Shell's claims that its decision to shut the refinery was not made to drive up profits, the company has admitted that "there will be an impact on the market." That impact will be to drive prices even higher. Oil companies predicted that the shutdown of the Powerine refinery would boost gasoline prices by 2 to 3 cents. That refinery's capacity was only 20,000 barrels per day. Because of the much larger capacity of the 70,000 barrel-per-day Bakersfield refinery, Shell's shutdown of this refinery would have an even larger impact on prices at the pump.

Why did the FTC say that it had first required that Texaco divest itself of Bakersfield and then, according to Senator Wyden's study, do nothing as Shell announced plans to close down the 70,000 barrels-per-day facility?

Mr. KOVACIC. I can confirm to you, and the Commission has authorized me to inform the committee, that the FTC is conducting a formal investigation of Shell's announcement that it is going to close the facility. I believe the scheduled closing date is tentatively say for the fall of this year.

I can confirm to you that the Commission has opened and is conducting a formal investigation to examine possible antitrust violations associated with the closure of that facility. It recognizes the urgency and time sensitivity of the matter. It is using its investigative resources at this moment to examine possible antitrust consequences of that event.

Mr. TIERNEY. I'm certainly glad to hear that.

But, are there other incidents like this that have occurred since 2000, where certain requirements of the FTC, in order to allow a merger or consolidation go forward, have been put in place and then the monitoring has not gone on from the FTC?

Mr. KOVACIC. For every transaction in which we have parties under order, which is the typical approach for a consent order, we monitor compliance with those requirements with the utmost urgency because it's fundamental to the legitimacy and effectiveness of any of our orders. We examine them carefully. I'm aware of no instance in which we have permitted a deviation from the requirements of the order to pass without challenge.

Mr. TIERNEY. Given the plans of Shell to close this Bakersfield refinery in the fall of this year, when do you think that your review will be done?

Mr. KOVACIC. I can't provide a specific date. But, I can only emphasize, as the Commission has instructed me to do today, that the inquiry is proceeding with the greatest possible urgency in light of the announced timetable for the closure of the facility. And we are fully aware that completing that inquiry sooner is absolutely indispensable.

Mr. TIERNEY. How transparent will your review be?

Mr. KOVACIC. Typically, where the Commission uses a formal investigation, it requires a vote of the Commission, a formal vote, to close the investigation. It has been the increasing custom of the Commission and the Department of Justice over the past 3 years, in closing an investigation that we regard as having significant policy import, to reveal the bases on which a decision to close the investigation was taken.

Mr. TIERNEY. And, will that be done before the vote is taken appreciably or only at the time of the vote?

Mr. KOVACIC. It is typically at the time that the investigation is closed that the Commission chooses to issue a statement that explains the reasons for closing the investigation. It is at the Commission's discretion to make announcements prior to the point at which it takes action either to prosecute or not to prosecute.

But, typically, the disclosure of the bases for not taking action takes place at the time the decision not to prosecute is made.

Mr. TIERNEY. Well, I would only suggest for whatever it's worth that given the questions that have been raised by RAND, by the GAO, by others, Consumer Reports, whatever, about the FTC's inaction or purported inaction, of some of these instances and the conduct of the industry, that, hopefully, your commission might decide to be a little more transparent in advance of its decision so that the public gets to see that it has done a thorough scrutiny of this in a very open manner and thorough manner, and that we all have a little heads-up to offer whatever input might be necessary to make sure there is a full and complete record. We appreciate that——

Mr. KOVACIC. I will certainly convey that to the commissioners themselves. I will make sure that your observations on that point are known to them as promptly as possible.

With the greatest respect, Congressman, I think that as our statement tries to lay out, to speak of the Commission's program as inaction is mystifying. I think that is a contentless description of the Commission's program here. It is a fair point to debate the level of activity, but is it really a fair approach to say that it's been one of inaction?

Mr. TIERNEY. Well, we will find out as we delve further into this. It's certainly not been as active as some of us would like to see, and I think, as many of the reports indicate, there hasn't been all the action that would be necessary to protect the consumers. So that would leave us with at least some inaction which I base my statement upon and some great distress for consumers who are paying the price at the pump. And, hopefully, we can put some policy around that to make sure that, as we move forward, we will all be on the same page. Thank you.

Mr. OSE. I thank the gentleman. I want to echo his comments regarding the Bakersfield refinery which, if I understand correctly,

is scheduled to close November 1. I know that the Attorney General in California is looking at this issue, and I know, pursuant to Shell's announcement, I have received anecdotal evidence that a number of buyers or potential buyers have gone to look at the refinery. There is a confidentiality agreement required for them to see the actual operating results of the refinery, so I can't give you anything more. But, I do appreciate the gentleman from Massachusetts's interest, because I share it, and I hope FTC does follow through.

Mr. KOVACIC. I can assure you, Mr. Chairman, that we regard this as a matter of particular urgency and importance. And we intend to cooperate, and we have been cooperating as fully as possible, with our colleagues in the State of California. And I can assure you that this is a matter of the greatest attention and urgency for the Commission, sir.

Mr. OSE. Every time I fill my tank, I will be thinking of you.

The gentleman from Ohio.

Mr. TIBERI. Speaking of refineries, Mr. Chairman.

Mr. Caruso, we heard today that crude oil is not in short supply. But, we also heard that refining capacity is nearly at capacity in America. In your opinion, how much would we have to increase our refining capacity in the United States to have a meaningful impact on lowering pump costs, fuel costs at the pump?

Mr. CARUSO. Well, that's, of course, a very complex issue, and we haven't studied it that directly. But, clearly, the lack of refining capacity, particularly in the conversion capacity, is an exacerbating factor to the higher prices of gasoline. It's not the No. 1 issue, as we have all agreed here, but it's a contributing factor.

An increase in refining capacity certainly would help with future gasoline prices, but I couldn't put a specific number on it at this time.

Mr. TIBERI. Mr. Maddox, do you want a shot at that?

Mr. MADDOX. I wouldn't venture a guess. I think we referred to earlier comments about crude being the major driver right now.

Mr. TIBERI. But you would concur—and you don't know what the number is, but added refining capacity at some point would lower fuel costs?

Mr. MADDOX. Well, I would say that, with the expected continued growth in refined products with economic growth over the next 10, 15 years, as I mentioned in my opening statement, we are going to need more refineries if we are going to have sufficient gasoline available. And, you know, a scarce commodity demands a higher price. I think that's basic economics.

Mr. TIBERI. Thank you.

Thank you, Mr. Chairman. You want a shot at that? I don't think anyone's willing to give me a number. Does the FTC have a number in terms of capacity, refining capacity that would have an impact?

Mr. KOVACIC. We don't sir. No.

Mr. TIBERI. Would you concur with both Mr. Caruso's statement and Mr. Maddox's statement?

Mr. KOVACIC. I would.

Mr. TIBERI. Thank you.

Mr. OSE. All right. I want to thank this panel for their participation.

As I said earlier, there are a number of questions that we have not gotten to. Given time constraints, we will be forwarding those to you in writing. We would appreciate timely responses. This record will remain open for 10 days as it relates to this panel and the next.

Gentlemen, I appreciate your appearance. I look forward to your contributions for solutions on this. I thank you for your participation. We will take a 5-minute recess.

All right. I want to welcome the second panel to our witness table. For today's hearing we're joined in this second panel by Mr. Bob Slaughter, who is the president of the National Petrochemical and Refiners Association and is also appearing on behalf of the American Petroleum Institute.

He is joined by Mr. Michael Ports, who is the president of the Ports Petroleum Co., Inc., and is here on behalf of the Society of Independent Gasoline Marketers of America and the National Association of Convenience Stores; and, if I am correct, he is from Mr. Tiberi's district—State. Don't you represent the whole State?

Mr. TIBERI. Not yet.

Mr. OSE. Well, you should.

We are also joined by Mr. Ben Lieberman, who is the director of air quality policy at the Competitive Enterprise Institute; and Mr. Blakeman Early, who is the environmental consultant for the American Lung Association.

Gentlemen, welcome. As you saw in the first panel, we routinely swear everybody in. So, if you'd all please rise.

[Witnesses sworn.]

Mr. OSE. Let the record show the witnesses all answered in the affirmative.

Now, we have received each of your written statements. They have been entered into the record. We have, in fact, read them, and we are going to give you each 5 minutes to summarize.

As you saw in the first panel, my gavel is heavy at 5 minutes. Please stay within that time requirement, given our time constraints.

Mr. Slaughter you're recognized for 5 minutes.

STATEMENTS OF ROBERT SLAUGHTER, PRESIDENT, NATIONAL PETROCHEMICAL AND REFINERS ASSOCIATION; MICHAEL PORTS, PRESIDENT, PORTS PETROLEUM CO., INC.; BEN LIEBERMAN, SENIOR POLICY ANALYST, COMPETITIVE ENTERPRISE INSTITUTE; AND A. BLAKEMAN EARLY, ENVIRONMENTAL CONSULTANT, AMERICAN LUNG ASSOCIATION

Mr. SLAUGHTER. Thank you, Mr. Chairman. I'll try to skip through the things even in my oral statement that have already been established.

One, we did establish earlier that roughly 60 percent of the current costs of gasoline basically are due to taxes, and particularly to the cost of crude oil. So we have established the fact that the recent run-up in demand for crude oil has had a significant impact.

The International Energy Agency has said that economic expansion is fueling the biggest increase in world oil demand in 16 years.

Chart No. 2 shows the strong correlation between crude costs, our major feedstock and gasoline prices, again establishing that fact.

We also have established the fact that fortunately refineries have been able to run at 95 to 96 percent of capacity for most of this year, which is far in excess of what we see in other heavy manufacturing industries.

We also have established the fact that we no longer have sufficient domestic refining to match our U.S. demand, particularly for gasoline. We are dependent on imports for 10 percent. There has been no increase in U.S. refining capacity for the past 3 years and no new refineries since 1976, although existing refineries have been modernized since that time. U.S. refining capacity in 1981 was 18.6 million barrels a day with 325 refineries. Today, we have 149 refineries with a total capacity of 16.8 million barrels per day. While U.S. demand for petroleum products has increased by over 21 percent since that time, domestic refining capacity has actually decreased by 10 percent.

If I could see the next chart, one of the major factors, cost factors, for the industry is the cost of environmental requirements. And this is the regulatory blizzard which shows all the different regulatory programs the industry is subject to this decade. We'll spend roughly $20 billion across the industry to comply with these programs, and most of them required by the Clean Air Act. Over the last decade, 1990 to 2000, we spent another $20 billion to comply.

We cannot say that we agree with EPA's characterization that these expenditures result in minimal costs to refiners. There are significant costs from these programs, which are nevertheless very important programs, and we support programs like this very strongly, both associations. But, we do believe that we have to take into account their impact on supply and do a better job of that in future than we have in the past.

In the meantime, it's unclear whether new refineries will be built. One company has been trying to build a new refinery in the American Southwest, one of the fastest growing areas in the United States. After 10 years, it has little to show for its efforts. It's hoping to get an air permit this year, but may or may not.

Certainly, New Source Review reform will be of help in this regard and also permit streamlining. ChevronTexaco, for instance, had to wait over a year this year to get permits for an ethanol tank, which the company had to have in California in order to comply with the ethanol mandate that's in effect now for gasoline due to the MTBE ban. Fourteen months is just too long to comply with a mandatory requirement like that, but that's the time they had to wait.

Obviously, such a significant investment for these refining programs over the last 20 years has taken a lot of the available investment capital away from the industry to meet these environmental requirements. Particularly with the reinterpretation of the new-source review program it became difficult even to add capacity to existing sites. And, we do believe that we can do a better job in the future of estimating the impact on supply of these regulatory requirements than we have been doing.

We need to be more careful also because, being dependent on imports for 10 percent of our supply, we have to make sure that our traditional suppliers of imports are given enough time to comply with the new regulatory requirements, as well, so they can continue to supply the increment that we've become dependent upon.

We believe that we need to coordinate State initiatives. The ban on MTBE in California, New York and Connecticut were not well coordinated, and we don't think that enough attention was paid to the impact on supply.

We do support elimination of the 2 percent requirement in reformulated gasoline for oxygenation. We believe that EPA should grant the waivers that have been requested by both California and New York until that repeal can be achieved.

We think you have heard enough in the background on the history of industry investigations. You will hear about refinery profitability and industry profitability. The numbers do appear large. They are large numbers in isolation, but it takes a great deal of money to remain in this business and to put back into this business to produce the products that consumers depend on.

So, we believe this has been a tough year. We think the industry has done its very best to keep supplying adequate products to the American people. We intend to continue doing that. And we look forward to your questions.

Mr. OSE. I thank the gentleman.

[The prepared statement of Mr. Slaughter follows:]

Written Statement of the
National Petrochemical & Refiners Association and the American Petroleum Institute

delivered by
Bob Slaughter
President, NPRA

before the
House Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs

concerning
The Volatility of U.S. Gasoline Markets

7 July 2004
Washington, DC

OVERVIEW

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to appear today to discuss the factors impacting current gasoline markets. My name is Bob Slaughter, and I am President of NPRA, the National Petrochemical & Refiners Association. I am also appearing today on behalf of the American Petroleum Institute (API).

NPRA is a national trade association with 450 members, including those who own or operate virtually all U.S. refining capacity, and most U.S. petrochemical manufacturers. API is a national trade association representing more than 400 companies engaged in all sectors of the U.S. oil and natural gas industry.

To summarize our message today, we urge policymakers in Congress and the Administration to support policies that encourage the production of an abundant supply of petroleum products for U.S. consumers. By the end of my testimony, I will outline and discuss key factors that will provide perspective about the current, as well as the anticipated future situation the nation confronts regarding gasoline supply and demand.

Before addressing these topics in detail, however, I want to underscore the point that NPRA and API support requirements for the orderly production and use of cleaner-burning fuels to address health and environmental concerns, while at the same time maintaining the flow of adequate and affordable gasoline and diesel supplies to the consuming public. Since 1970, clean fuels and clean vehicles account for about 70% of all U.S. emission reductions from all sources, according to EPA. Over the past 10 years, U.S. refiners have invested about $47 billion in environmental improvements, much of that to make cleaner fuels. For example, according to EPA, the new Tier 2 low sulfur gasoline program, initiated in January, will have the same effect as removing 164 million cars from the road when fully implemented.

Unfortunately, however, federal environmental policies have often neglected the impact of environmental regulations on fuel supply, and policy makers have often taken supply for granted, except in times of obvious market instability. This attitude must end. A healthy and growing U.S. economy requires a steady, secure, and predictable supply of petroleum products.

Although there is much finger pointing regarding current gasoline market conditions, there are no silver bullet solutions for balancing supply and demand. Indeed most of the problems in today's gasoline market result from the high price of crude oil and strong demand for gasoline due to the improving U.S. economy. U.S. refineries have produced increased amounts of gasoline and distillates so far this year compared to last year.

Instead of engaging in a fruitless search for dubious quick-fix "solutions", or, even worse, taking action that could be harmful, we urge Congress, the Administration, and the motoring public to exercise continued patience with the free market system. The nation's refiners are working hard to meet rising demand while complying with extensive regulatory controls that affect both our facilities and the products we manufacture.

To summarize our policy recommendations, we urge Congress to pass the Conference Report on HR 6. This is the most important action that can be taken to improve U.S. energy security. Putting the conference report on the President's desk is the best way to move energy policy forward into the 21st century. Congress should also support the New Source Review (NSR) reforms which have spanned two Administrations, which will encourage capacity expansions and efficient operation of existing refineries by facilitating the installation of new technologies. Congress should resist any new "federal fuel recipes" or hasty action on the subject of boutique fuels. Congress should act to repeal the 2% RFG oxygenation requirement.

As in the previous three years, gasoline costs and supply are again a hot topic in the media and in political debates. In addition to the usual tight supply/demand balance for gasoline and other petroleum products, critical external factors are contributing to high gasoline costs this year:

- Higher crude oil costs (This year WTI crude oil recently crossed the $40 per barrel threshold; it has now retreated to roughly $37 per barrel.);
- Increased consumer demand (The Energy Information Administration (EIA) calculates current gasoline demand at 8.9–9 mm b/d and predicts it could rise to equal a record 9.4 mm b/d this summer);
- Implementation of state MTBE bans and an ethanol mandate in California, Connecticut, & New York (These states represent one-sixth of U.S. gasoline sales.);
- Rollout of Tier 2 gasoline with reduced sulfur, a new standard which may have affected imports temporarily; and
- Changeover to summer fuel formulations.

We will discuss some of these factors in more detail.

UNDERSTANDING GASOLINE MARKET FUNDAMENTALS: HIGH CRUDE PRICES; STRONG GASOLINE DEMAND GROWTH

We will first discuss the dynamics of current gasoline markets. It is important to begin with the most significant factor affecting gasoline prices: crude oil. This currently represents 40% of the cost of a gallon of gasoline, while taxes add another 21% to the price. Thus, over 60% of the retail cost of gallon of gasoline is attributable to these two components, crude oil costs and tax, which are beyond the control of refiners. (See Attachment 1)

Higher crude oil prices, set on international markets, have driven most of the increases in gasoline costs. When crude oil prices crested above $42 a barrel not too long ago, refiners were paying more than $1.00 for each gallon of crude oil used to make a gallon of gasoline. Relatively high crude oil prices reflect rapidly growing world demand relative to slower growing supply. Most significantly, crude oil and gasoline costs closely track each other. (See Attachment 2.)

Since April of 2003, crude oil prices have escalated nearly 52%. Factors driving crude prices include: (1) high demand, spurred by significant economic growth in Asia, (2) decisions by OPEC affecting output, and (3) recurring uncertainties about crude and product production capabilities in the Middle East and in other countries.

The International Energy Agency (EIA) says economic expansion is fueling the biggest increase in world oil demand in 16 years. In the U.S., oil demand is up 2.8 percent over a year ago. International demand is projected to be up 2.9 percent this year, with a 23 percent year-on-year increase in China during the second quarter. China's crude oil imports grew 36 percent last year, making China the second largest importer of crude oil in the world. There has also been strong demand growth in India and other Asian countries.

World crude oil supplies have been insufficient to keep prices moderate because of several factors, including OPEC production cuts, the aftermath of strikes and political uncertainty in Venezuela, troubles in Nigeria, and domestic U.S. policies that often prevent development of promising U.S. oil fields.

Today's tight crude market – and the resulting higher crude costs – couldn't be predicted although we've known that demand was rising. For years, government and private energy analysts have talked about this. A few years ago, the U.S. Energy Information Administration (EIA) estimated that in 2020 it would take new oil production capacity equal to eight times Saudi Arabia's current output to replace lost supply from declining fields and to satisfy new growth in world demand. We've known we would need to bring substantial new production on line, but until the last six months, weaker economic conditions, which restrained growth in demand for crude oil, have masked the problem we face in maintaining an adequate supply of oil and oil products to fuel U.S. economic growth.

Another principal contributor to the increase in gasoline costs is tightness in our nation's gasoline markets. With our economy improving, Americans are consuming markedly more gasoline, up three percent compared with last year. While U.S. refiners are producing record amounts, strong demand and a reduction in gasoline imports have tightened supply, putting upward pressure on prices. Less gasoline has been imported, due – at least in part – to new low sulfur gasoline requirements and expanded use of ethanol, especially in areas with no experience in using it. Even with refineries running flat out at 95% average capacity utilization rates, strong demand has kept inventories below average.

Gasoline demand currently averages approximately 9 million barrels per day. Domestic refineries produce about 90 percent of U.S. gasoline supply, while about 10 percent is imported. Therefore, growing demand can only be met by either increasing domestic refinery production or by relying on more foreign gasoline imports. Unfortunately, rising U.S. gasoline demand and the need for more domestic gasoline production capacity collide with public policies, local opposition, and regulatory obstacles that deter increased domestic refining capacity.

IT IS IMPORTANT TO ENCOURAGE ADDITIONAL DOMESTIC REFINING CAPACITY.

Domestic refining capacity is a scarce asset. There are currently 149 U.S. refineries owned by almost 60 companies in 33 states, with total crude oil processing capacity at roughly 16.8 million barrels per day. In 1981, there were 325 refineries in the U.S. with a capacity of 18.6 million barrels per day. Thus, while U.S. demand for gasoline has increased over 20% in the last twenty

years, U.S. refining capacity has decreased by 10%. No new refinery has been built in the United States since 1976, and it is unlikely that one will be built here in the foreseeable future, due to economic, public policy and political considerations, including siting costs, environmental requirements, industry profitability and, most importantly, "not in my backyard" (NIMBY) public attitudes. However, we would point out that existing refineries have been upgraded and modernized with new technologies and emissions controls.

U.S. refining capacity increased slightly in recent years, but there has been no net increase for the past three years. Because new refineries have not been built, refiners have had to increase capacity at existing sites to offset the impact of capacity lost elsewhere due to refinery closures. But it is now becoming harder to add capacity at existing sites due in part to more stringent environmental regulations and the existence of a complex and open-ended permitting process. Proposed capacity expansions can often become difficult and contentious at the state and local level, even when necessary to produce cleaner fuels pursuant to regulatory requirements. We hope that policymakers will recognize the importance of domestic refining capacity expansions to the successful implementations of the nation's environmental policies, especially clean fuels programs. We ask that Members of Congress help inform the public of the need for these facility improvements. New Source Review reform will also provide an important tool to help add new and modernize U.S. refining capacity.

For this reason, we urge policymakers to recognize the importance of sustaining the Administration's NSR reforms so that domestic refiners can continue to meet the growing public demand for gasoline and comply with new environmental programs. These reforms have been under consideration since 1996 and reflect significant public review and comment. The NSR reforms should facilitate new domestic refining capacity expansions. Those reforms will also encourage the installation of more technologically-advanced equipment and provide greater operational flexibility while maintaining a facility's environmental performance. Unfortunately, the Administration's much needed NSR reforms are currently tied-up in litigation, at a time when American fuel consumers are most in need of their immediate implementation.

Common sense dictates that it is in our nation's best interest to manufacture the lion's share of the petroleum products required for U.S. consumption in domestic refineries and petrochemical plants. Nevertheless, we currently import more than 62% of the crude oil and oil products we consume. Reduced U.S. refining capacity clearly affects our supply of refined petroleum products and the flexibility of the supply system, particularly in times of unforeseen disruption or other stress. Unfortunately, EIA currently predicts "substantial growth" in refining capacity only in the Middle East, Central and South America, and the Asia/Pacific region, not in the U.S.

THE U.S. REFINING INDUSTRY IS DIVERSE AND COMPETITIVE.

Today's U.S. refining industry is highly competitive. Some suggest past mergers are responsible for higher prices. The data do not support such claims. In fact, companies have become more efficient and continue to compete fiercely. There are almost 60 refining companies in the U.S., hundreds of wholesale and marketing companies, and more than 165,000 retail outlets. The biggest refiner accounts for only about 13 % of the nation's total refining capacity; and the large integrated companies own and operate only about 10 % of the retail outlets. The Federal Trade

Commission (FTC) thoroughly evaluates every one of our merger proposals, holds those mergers to the highest standards, and subjects the industry to a higher level of ongoing scrutiny. For decades, investigations of price spikes have consistently exonerated the industry of any wrongdoing.

A recent U.S. General Accounting Office (GAO) report raised the issue of the impact of mergers. It concluded that they raised average wholesale gasoline prices by one-half cent per gallon. However, even this modest figure is strongly suspect. FTC chairman Timothy J. Muris has strongly criticized the reliability of the GAO report: "As the Commission unanimously said in its August 2003 letter to the GAO, this report has major methodological mistakes that make its quantitative analyses wholly unreliable; relies on critical factual assumptions that are both unstated and unjustified; and presents conclusions that lack any quantitative foundation. As a result, the report does not meet GAO's own high standards of 'accountability, integrity, and reliability' that one expects from its reports and publications."

Other evidence further undermines the GAO's conclusions. For example, a comparison of U.S. Energy Information Administration price data for the six years before the mergers, 1990-1996, and a similar period after, 1997-2003, shows that retail prices were on average five cents per gallon less in the latter period. A price breakdown shows that four cents of that decline resulted from lower costs to manufacture, market, and distribute gasoline.

Critics of the mergers sometimes suggest that the industry is able to affect prices because it has become much more concentrated, with a handful of companies controlling most of the market. This is untrue. According to data compiled by the U.S. Department of Commerce and by Public Citizen, in 2003 the four largest U.S. refining companies controlled a little more than 40 % of the nation's refining capacity. In contrast, the top four companies in the auto manufacturing, brewing, tobacco, floor coverings and breakfast cereals industries controlled between 80 % and 90 % of the market.

Tight gasoline market conditions have often led to calls for industry investigations. More than two dozen federal and state investigations over the last several decades have found no evidence of wrongdoing or illegal activity. For example, after a 9-month FTC investigation into the causes of price spikes in local markets in the Midwest during the spring and summer of 2000, former FTC Chairman Robert Pitofsky stated, "There were many causes for the extraordinary price spikes in Midwest markets. Importantly, there is no evidence that the price increases were a result of conspiracy or any other antitrust violation. Indeed, most of the causes were beyond the immediate control of the oil companies." Similar investigations before and since have reached the same conclusion.

INDUSTRY IS WORKING HARD TO KEEP PACE WITH GROWING DEMAND FOR FUEL.

Despite the powerful factors influencing gasoline manufacturing, cost and demand, refiners are addressing supply challenges and working hard to supply sufficient volumes of gasoline and other petroleum products to the public. During the four-week period ending June 18, 2004, the EIA reported that refiners produced 8.7 million barrels per day of gasoline, a 2.4% increase over the same period last year.

Refineries are running at record levels, producing record amounts of gasoline and distillate for this time of year. Refiners have been operating at an average utilization rate of 95% even before the start of the summer driving season. To put this in perspective, peak utilization rates for other manufacturers average about 82 %. At times during the summer, refiners operate at rates close to 98 %. However, such high rates cannot be sustained for long periods.

In addition to coping with the higher fuel costs and growing demand, refiners are implementing significant transitions in major gasoline markets. Nationwide, the amount of sulfur in gasoline was reduced from an average of 300 parts per million (ppm) to a corporate average of 120 ppm effective January 1, 2004, giving refiners an additional challenge in both the manufacture and distribution of fuel. Equally significant, California, New York and Connecticut bans on use of MTBE went into effect January 1. This is a major change affecting one-sixth of the nation's gasoline market. Where MTBE was used as an oxygenate in reformulated gasoline, it accounted for as much as 11% of RFG supply at its peak, and substitution of ethanol for MTBE does not replace all of the volume lost by removing MTBE. (Ethanol's properties generally cause it to replace only about 50% of the volume lost when MTBE is removed.) The missing volume must be supplied by additional gasoline or gasoline blendstocks.

Due to these changes in U.S. gasoline specifications, the volume of gasoline imports declined roughly 10% earlier this year, although volumes have recently increased somewhat. As U.S. fuel specifications change, foreign refiners may not be able to supply the U.S. market without making expensive upgrades at their facilities. They may eventually elect to do so, but a time lag may occur, adding to the current tightness in the gasoline market.

Refiners have completed the annual switch to summer gasoline blends, a process which is complicated by the ethanol mandate in markets like New York, Connecticut and California that previously experienced little ethanol use. These complications reflect the need to adjust the gasoline blend for increased ozone precursor emissions in warm weather.

Obviously, refiners face a daunting task in rationalizing all these changes in order to deliver the fuels that consumers and the nation's economy require. But they are succeeding. And regardless of recent press stories, we need to remember that American gasoline and other petroleum products remain a bargain when compared to the price consumers in other large industrialized nations pay for those products.

REFINERS FACE A BLIZZARD OF REGULATORY REQUIREMENTS AFFECTING BOTH FACILITIES AND PRODUCTS.

Refiners currently face the massive task of complying with fourteen new environmental regulatory programs with significant investment requirements, all in the same 2002 – 2010 timeframe. (See Attachment 3.) For the most part, these regulations are undertaken pursuant to the Clean Air Act. Some will require additional emission reductions at facilities and plants, while others will require further changes in clean fuel specifications. NPRA estimates that refiners are in the process of investing about $20 billion to sharply reduce the sulfur content of gasoline and both highway and off-road diesel. Refiners may face additional investment requirements to deal with limitations on ether use, as well as compliance costs for controls on Mobile Source Air Toxics and other limitations. These costs do not include significant additional investments needed to comply with stationary source regulations affecting refineries.

On the horizon are other potential environmental regulations which could force additional large investment requirements. They are: the challenges posed by increased ethanol use, possible additional changes in diesel fuel content involving cetane, and potential proliferation of new fuel specifications driven by the need for states to comply with the new eight-hour ozone NAAQS standard. The 8-hour standard could also result in more regulations affecting facilities such as refiners and petrochemical plants. The industry must also supply two new mandatory RFG areas (Atlanta and Baton Rouge) under the "bump up" policy of the current one-hour ozone NAAQS.

These are just some of the pending and potential air quality challenges that the industry faces. Refineries are also subject to extensive regulations under the Clean Water Act, Toxic Substances Control Act, Safe Drinking Water Act, Oil Pollution Act of 1990, Resource Conservation and Recovery Act, Emergency Planning and Community Right-To-Know (EPCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and other federal statutes. The industry also complies with OSHA standards and many state statutes. A complete list of federal regulations impacting refineries is included with this statement. (See Attachment 4.)

API estimates that, since 1993, about $89 billion (an average of $9 billion per year) has been spent by the oil and gas industry to protect the environment. This amounts to $308 for each person in the United States. More than half of the $89 billion was spent in the refining sector.

A KEY GOVERNMENT ADVISORY PANEL HAS JOINED INDUSTRY IN URGING REGULATORY SENSITIVITY TO SUPPLY CONCERNS.

The National Petroleum Council (NPC) issued a landmark report on the state of the refining industry in 2000. Given the limited return on investment in the industry and the capital requirements of environmental regulations, the NPC urged policymakers to pay special attention to the timing and sequencing of any changes in product specifications. Failing such action, the report cautioned that adverse fuel supply ramifications may result. Unfortunately, this warning has been widely disregarded. On June 22, 2004 Energy Secretary Abraham asked NPC to update and expand its refining study with a completion date of September 30, 2004. Information in this

new study should benefit policymakers, but they must actively implement the study's recommendations to deal with U.S. refining problems.

We would point to the public rulemaking record illustrating recommendations industry has made on environmental regulations over the past eight years. Industry has consistently supported continued environmental progress, but cautioned regulators to balance environmental and energy goals by considering the supply implications of multiple new regulatory requirements. Industry has commented on many new stationary source and fuel proposals, urging adoption of more reasonable standards with adequate lead-time to make the necessary facility changes in order to mitigate potential supply shortfalls. Many times, if not most, industry recommendations have been rejected, as regulators opted to promulgate more stringent standards without leaving a margin of safety for energy supply security. We are now beginning to experience the impact of these decisions.

Continuing America's environmental progress through increased supply of cleaner fuels is a crucial part of U.S. policy, but environmental improvements are not free. There are sizeable costs. All too often this reality is underestimated or ignored. Heavy investment requirements affect U.S. production capabilities. And again, as we are beginning to experience, imported products may be harder to come by at least initially, since U.S. gasoline (and soon diesel) specifications may be too strict for foreign refineries to manufacture without making significant investments to upgrade facilities. This means that product imports may decline at the outset of a new regulatory program while foreign suppliers decide whether to invest or to sell in non-U.S. markets.

At the same time, when the domestic industry has made the significant capital expenditures required by the regulations, it is important that final regulations not be changed except in cases of absolute necessity. Stability and certainty in regulatory implementation is needed to encourage and recognize the investment of the regulated industry in the new regulations. A far better approach than granting waivers is to develop regulations that reflect the need for caution regarding continued fuel supply from the outset when regulations are finalized, not during the implementation period after investments have already been made.

This year, as gasoline markets began to reflect the implementation of Tier 2 gasoline sulfur reduction, policymakers seemed to consider easing the new gasoline sulfur specifications for some gasoline importers as a "relief valve" for the market, despite conflicting indications whether or not any real problems existed. This would have adversely affected the refining industry, which has already made substantial investments in gasoline sulfur reductions and is in the process of making equally large investments in diesel sulfur reductions. Even more importantly, such a program change would have eliminated part of the environmental benefits of the Tier 2 program, all for the benefit of foreign suppliers who did not invest, and to the detriment of U.S. refiners who did. Fortunately, no action was taken to waive gasoline sulfur requirements.

As a general rule, when any party suggests that regulatory relief is needed, it is important that EPA consult with and work closely with the EIA, which has expertise in gasoline supply and demand analysis.

Waivers may merit consideration on rare occasions, and they are tools available to regulators. But there should be a high burden of proof for waiver proponents. Waivers by their very nature can cause uncertainty and unfair loss of investment in the affected market. However, where there is universal agreement that a particular rule or policy no longer is valid, or better options exist for reaching desired objectives, then certainly that policy should be reconsidered. An excellent example is the 2% oxygenate requirement for reformulated gasoline (RFG), which should be repealed.

REFINERS WILL DO THEIR BEST TO MEET SUPPLY CHALLENGES, BUT SOME FACILITIES MAY CLOSE.

Domestic refiners will rise to meet the supply challenges in the short and the long term with the support of policymakers and the public. They have demonstrated the ability to adapt to new challenges and maintain the supply of products needed by consumers across the nation. But certain economic realities cannot be ignored and they will impact the industry. Refiners will, in most cases, make the investments necessary to comply with the environmental programs outlined above. In some cases, however, where refiners are unable to justify the costs of investment at some facilities, facilities may close or the refiner may exit certain product markets. These are economic decisions based on facility profitability relative to the size of the required investment needed to stay in business either across the board or in one product line, such as U.S. highway diesel fuel.

EIA summarizes the impact of past and future refinery closures: "Since 1987, about 1.6 million barrels per day of capacity has been closed. This represents almost 10% of today's capacity of 16.8 million barrels per calendar day...The United States still has 1.8 million barrels of capacity under 70 MB/CD (million barrels per calendar day) in place, and closures are expected to continue in future years. Our estimate is that closures will occur between now and 2007 at a rate of about 50-70 MB/CD per year." (EIA, J. Shore, "Supply Impact of Losing MTBE & Using Ethanol," October 2002, p. 4.)

REFINING INDUSTRY ECONOMICS ARE WIDELY MISUNDERSTOOD.

Refining industry profitability is also not well understood. The ten-year average return on investment in the industry is about 5.5%; this is about what investors could receive by investing in government bonds, with little or no risk. It is also less than half of the S& P Industrials figure of a 12.7% return. This relatively low level of refiners' return, which incorporates the cost of capital expenditures required to meet environmental regulations, is another reason why domestic refinery capacity additions have been modest and a reason why new refineries are unlikely to be constructed here in the U.S. (2003 was a relatively good year for the refining industry with average profit rate of 6.4%, which is above the rate of return for previous years; however, in the industry's long experience, rates of return over time revert to the mean of about 5 %.)

Data compiled by EIA (Performance Profiles of Major Energy Producers) show that over the 10 year period from 1993 – 2002, the return on investment (net income/investment in place) for the refining sector averaged 5.5%, compared to an average return of 12.7 % for the S& P Industrials.

In 2002, the return was a negative 2.7% for refining, compared to a positive 6.6% for the S & P Industrials.

Higher gasoline prices have increased industry profits, but our average profit margins were below those of other industries in the first quarter, as reported in *Business Week* magazine on May 17th. Based on data from *Oil Daily,* the U.S. oil and gas industry earned 6.9 cents on the dollar. This was below the all-industry average which was 7.5 cents. Refining industry profits as a percentage of operating capital are small. In dollars, they seem large due to the massive scale needed to compete in the world's largest industry. A new medium-scale refinery (100,000 to 200,000 barrels/day capacity) would cost $2 to $3 billion. And, over the last decade, companies spent about $5 billion per year on environmental compliance with refinery and fuels regulations. In short, our revenues can be in the billions, but so, too, are our costs of operations.

THERE ARE NO "QUICK FIXES" TO CURRENT MARKET CONDITIONS. POLICYMAKERS AND THE PUBLIC SHOULDN'T LOSE FAITH IN THE FREE MARKET.

Modern energy policy relies upon an important tool which encourages market participants to meet consumer demand in the most cost-efficient way: market pricing. The free market swiftly provides buyers and sellers with price and supply information to which they can quickly respond. Refiners need maximum flexibility to react to this market information as they make decisions about product manufacture and distribution. Mandates and other command-and-control policy mechanisms reduce this needed flexibility and add unnecessary cost to gasoline manufacture.

Industry appreciates the patience and restraint that the public and policymakers have shown in responding to current market conditions and the higher cost of gasoline. Consumers clearly want and need abundant supplies of clean fuels at market-based prices. Fuel manufacturers do their best to meet this demand and will continue to work with policymakers to support policies that increase the supply of clean fuels while maintaining adequate supplies. In the short term, there are no "silver bullets" to alleviate the high costs of gasoline for consumers this summer. Putting the current situation in a broader, more positive perspective, however, the U.S. has some of the cleanest and least costly fuels in the world.

We ask that policymakers take particular care in considering the impact of so-called "boutique fuel" gasolines. In many cases, these programs represent a local area's attempt to address its own air quality needs in a more cost-effective way than with RFG, which is burdened by an overly prescriptive recipe and an oxygenation mandate. Industry supports further study of the "boutique fuels" phenomenon, but urges members of the Committee to resist imposition of any additional fuel specification changes. Further changes in fuel specifications in the 2004 – 2010 timeframe could add greater uncertainty to a situation which already provides significant challenges to all market participants.

CONCLUSION

There is a very close connection between federal energy and environmental policies. Unfortunately, these policies are often debated and decided separately and thus in a vacuum. As a result, positive impacts for one policy area sometimes conflict with or even undermine goals and objectives in the other.

Industry therefore requests that an updated energy policy be adopted incorporating the principle that, in the case of new environmental initiatives affecting fuels, environmental objectives must be balanced with energy supply requirements. As explained above, the refining industry is in the process of redesigning much of the current fuel slate to obtain desirable improvements in environmental performance. This task will continue because consumers desire higher-quality and cleaner-burning fuels. And our members want to satisfy their customers. They ask only that the programs be well-designed, coordinated, appropriately timed and cost-effective. The Committee can advance both the cause of cleaner fuels and preserve the domestic refining industry by adopting this principle as part of the nation's energy and environmental policies.

A healthy and diverse U.S. refining industry serves the nation's interest in maintaining a secure supply of energy products. Rationalizing and balancing our nation's energy and environmental policies will protect this key American resource. Given the challenges of the current and future refining environment, the nation is fortunate to retain a refining industry with many diverse and specialized participants. Refining is a tough business, but the continuing diversity and commitment to performance within the industry demonstrate that it has the vitality needed to continue its important work, especially with the help of a supply-oriented national energy policy.

RECOMMENDATIONS

We make the following recommendations to address concerns regarding fuel supplies, environmental regulations, and market issues.

- Enacting the Conference Report on HR 6, a balanced and fair energy bill that brings energy policy into the 21st century, is the most important step needed to encourage new energy supply and streamline regulations.

- Public policymakers should balance environmental policy objectives and energy supply concerns in formulating new regulations and legislation.

- EPA should grant the California and New York requests to waive the 2% oxygen requirement for federal RFG. This will give refiners increased flexibility to deal with changing market conditions. It will also allow them to blend gasoline to meet the standards for reformulated gasoline most efficiently and economically, without a mandate.

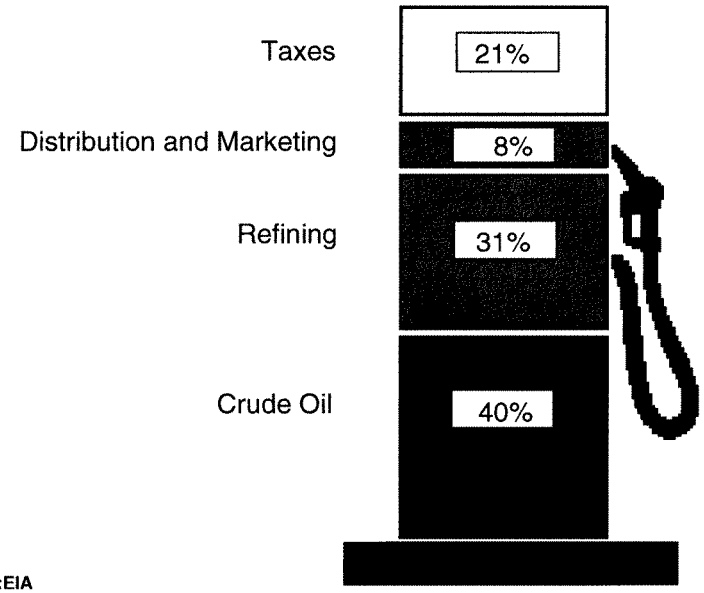
- Congress should support the New Source Review reforms as well as other policy changes that encourage capacity expansions at existing refineries.

- Congress should be cautious about making any policy changes affecting "boutique fuels."

- Policymakers must resist turning the clock backwards to the failed policies of the past. Experience with price constraints and allocation controls in the 1970s and 1980s demonstrates the failure of price regulation, which adversely impacted both fuel supply and consumer cost.

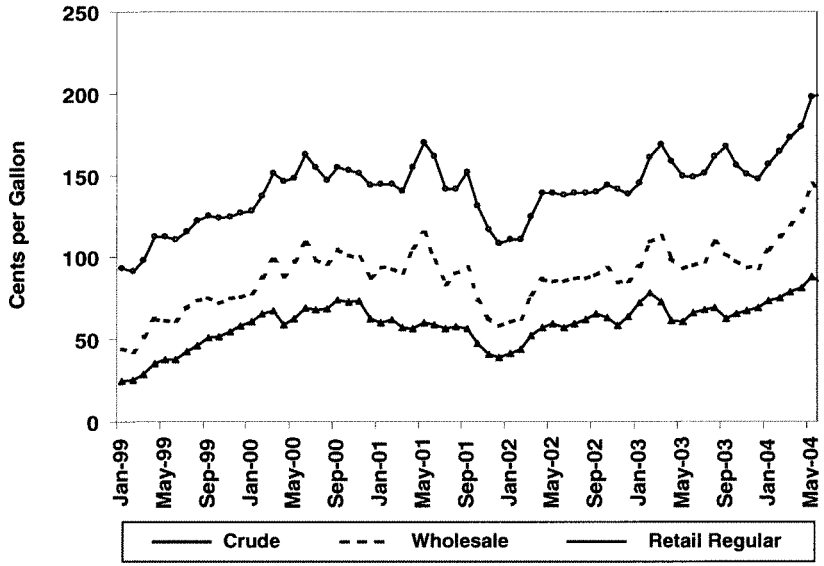
The industry looks forward to continuing to work with this Subcommittee, and thanks the Chairman for holding this important hearing. I would be glad to answer any questions raised by our testimony today.

What We Pay For in a Gallon of Regular Gasoline
(May 2004)
Retail Price: $1.98/gallon



Source:EIA

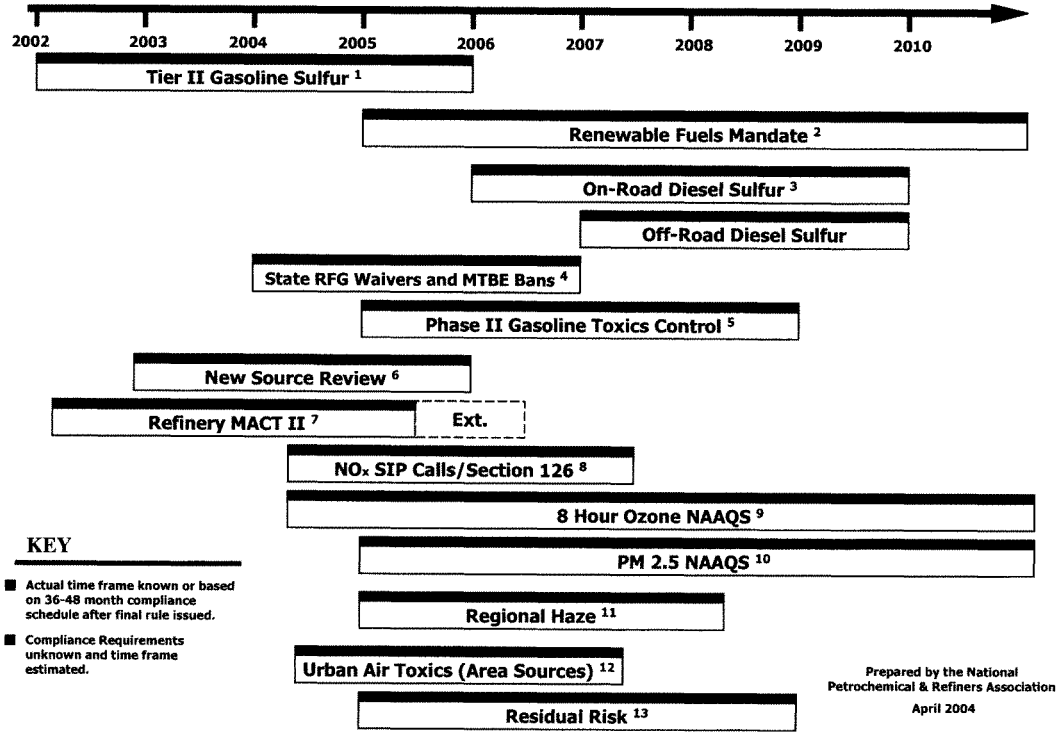
Gasoline Prices and Crude Oil Costs



Source: EIA

ychment 3

Cumulative Regulatory Impacts on Refineries, 2002 - 2010



KEY

- Actual time frame known or based on 36-48 month compliance schedule after final rule issued.
- Compliance Requirements unknown and time frame estimated.

Prepared by the National Petrochemical & Refiners Association

April 2004

1. Longer compliance time for refineries in Alaska and Rocky Mountain states as well as small refineries covered by the Small Business Regulatory Enforcement and Flexibility Act (SBREFA). Additional compliance time is available for these refineries if they produce ultra low sulfur highway diesel beginning in 2006.
2. Proposed energy bill (HR 6) includes an ethanol mandate which increases to 5 billion gallons in 2012.
3. Longer compliance time for small refiners covered by SBREFA.
4. Many state legislatures are considering bans on MTBE. CA, NY and CT bans effective January 2004. EPA is considering waiver requests from NY and CA for exemptions from the 2% oxygen mandate for RFG.
5. Phase II Mobile Source Air Toxics Rule to be proposed at the end of 2004. It is uncertain whether fuels and/or vehicles will be further regulated.
6. New Source Review reform (program changes and RMRR) is subject to litigation. Refiners face uncertainty in meeting regulatory requirements. Refiners support the reforms. EPA is continuing enforcement actions under the old rules.
7. Some facilities may delay compliance until May 2009 if they install a hydrotreater.
8. SIPs due by April 2005 for 21 states and the District of Columbia to address downwind NOx transport; compliance by May 2007.
9. Ozone non-attainment designations made April 2004. State Implementation Plans (SIPs) are due by June 2007. Compliance, depending upon classification, required between 2007 – 2021.
10. PM 2.5 non-attainment designations due at the end of 2004. SIPs due in the 2007-2008 timeframe.
11. Regional Haze SIPs due January 2008. Plans will include new plant controls for older facilities (built 1962- 1977) in 2011-2013 timeframe (BART controls) in areas with visibility problems.
12. Urban Air Toxics Strategy includes potential controls of gasoline loading facilities at refineries. Estimated compliance schedule.
13. Proposal is expected in 2004. A final rule is expected in 2005 with compliance by 2009.

Attachment 4
Source: API, 1997

Appendix A
PETROLEUM REFINING: APPLICABLE REGULATIONS

Name	Code of Federal Regulation (CFR) Cite	Effective Date
CLEAN AIR ACT (CAA)		
New Source Performance Standards (NSPSs)	40 CFR Part 60	
Subpart A: General Provisions	40 CFR Part 60	mid 1970s
Subpart Cb: Designated Facilities - Existing Sulfuric Acid Units	40 CFR Part 60	1991
Subpart D: Fossil-Fuel Fired Steam Generators Constructed After 8/17/71	40 CFR Part 60	1977
Subpart Da: Electric Utility Steam Generating Units Constructed After 9/18/78	40 CFR Part 60	1978
Subpart Db: Industrial-Commercial-Institutional Steam Generating Units	40 CFR Part 60	1987
Subpart Dc: Small Industrial-Commercial-Institutional Steam Generating Units	40 CFR Part 60	1990
Subpart H: Sulfuric Acid Units	40 CFR Part 60	1977
Subpart J: Petroleum Refineries	40 CFR Part 60	1978
Subpart K: Storage Vessels for Petroleum Liquids Constructed, Reconstructed or Modified between 6/11/73 and 5/19/78	40 CFR Part 60	1977
Subpart Ka: Storage Vessels for Petroleum Liquids Constructed, Reconstructed or Modified between 5/18/78 and 7/23/84	40 CFR Part 60	1980
Subpart Kb: Volatile Organic Liquid Storage	40 CFR Part 60	1987
Subpart GG: Stationary Gas Turbines	40 CFR Part 60	1978
Subpart UU: Asphalt Processing and Roofing Manufacturing	40 CFR Part 60	1982
Subpart VV: Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI)	40 CFR Part 60	1983
Supart XX: Bulk Gasoline Terminals	40 CFR Part 60	1983
Subpart GGG: Equipment Leaks of VOC in Petroleum Refineries	40 CFR Part 60	1984
Subpart III: VOC Emissions for SOCMI Air Oxidation Unit Processes	40 CFR Part 60	1990
Subpart NNN: VOC Emissions for SOCMI Distillation Processes	40 CFR Part 60	1990
Subpart QQQ: VOC Emissions for Petroleum Refinery Wastewater Systems	40 CFR Part 60	1988
Subpart RRR: SOCMI Reactor Processes	40 CFR Part 60	1993
National Emission Standards for Hazardous Air Pollutants (NESHAPs)		
Subpart A: General Provisions	40 CFR Part 61	1973
Subpart J/V: Equipment Leaks (Fugitive Emission Sources) of Benzene	40 CFR Part 61	mid 1980s
Subpart M: Asbestos	40 CFR Part 61	1984
Subpart Y: Benzene Emissions from Benzene Storage Vessels	40 CFR Part 61	mid 1980s
Subpart BB: Benzene Emissions from Benzene Transfer Operations	40 CFR Part 61	mid 1980s
Subpart FF: Benzene Waste Operations	40 CFR Part 61	1993

Name	Code of Federal Regulation (CFR) Cite	Effective Date
NESHAPs for Source Categories		
Subpart A: General Provisions	40 CFR Part 63	1994
Subpart B: Control Technology Determination	40 CFR Part 63	1994
Subpart F: SOCMI	40 CFR Part 63	1994
Subpart G: SOCMI Process Vents, Storage Vessels, Transfer Operations, and Wastewater	40 CFR Part 63	1994
Subpart H: Equipment Leaks	40 CFR Part 63	1994
Subpart I: NESHAP for Organic Hazardous Air Pollutants (HON); Certain Processes Subject to the Negotiated Regulation for Equipment Leaks	40 CFR Part 63	1994
NESHAP for HON (partially under stay pending reconsideration for compressors, surge control vessels, and bottom receivers)	40 CFR Part 63	4/22/94
Subpart Q: Industrial Cooling Towers	40 CFR Part 63	1994
Subpart R: Stage I Gasoline Distribution Facilities	40 CFR Part 63	12/14/94
Subpart T: Halogenated Solvent Cleansing (MACT)	40 CFR Part 63	12/2/94
Subpart Y: NESHAP for Marine Tank Vessel Loading and Unloading Operations (MACT)	40 CFR Parts 9, 63	mid 1995
Subpart CC: NESHAP for Petroleum Refining — Phase I (MACT)	40 CFR Parts 9, 60, 63	mid 1995
Stack Height Provisions	40 CFR Part 51, Subpart G	1986
Control Technology Guidelines (CTGs)		
Petroleum Liquid Storage In External Floating Roof Tanks	40 CFR Part 52	1978
Petroleum Liquid Storage in Fixed Roof Tanks	40 CFR Part 52	1977
Petroleum Refinery Equipment Leaks	40 CFR Part 52	1978
Refinery Vacuum Producing Systems, Wastewater Separators and Process Unit Turnarounds	40 CFR Part 52	1977
SOCMI Air Oxidation Processes	40 CFR Part 52	1984
SOCMI Distillation Operations and Reactor Processes	40 CFR Part 52	1993
Tank Truck Gasoline Loading Terminals	40 CFR Part 52	1977
Fuels		
Fuel and Fuel Additives:		
Registration Requirements	40 CFR Part 79	5/27/94
Interim Requirements for Deposit Control Gasoline Additives	40 CFR Part 80	1/1/95
Reid Vapor Pressure Limitation	40 CFR Part 80	late 1980s
Oxygenated Fuel Requirement	40 CFR Part 80	1992
Lead Phaseout	40 CFR Part 80	12/31/95
Reformulated Gasoline	40 CFR Part 80	1/1/95
Low Sulfur Diesel	40 CFR Part 85	1993
Permits		
State Operating Permit Program - Title V (Revised 8/29/94)	40 CFR Part 70	1992
Prevention of Significant Deterioration (new sources in attainment areas) and New Source Review (new sources in non-attainment areas); LAER requirements (existing source)	40 CFR Part 52	1978
Stratospheric Ozone	40 CFR Part 82	1990-2015

Name	Code of Federal Regulation (CFR) Cite	Effective Date
Acid Rain Provisions	40 CFR Parts 72, 73, 75, 77, 78	ongoing
Nitrogen Oxides Emission Reduction Program	40 CFR Part 76	1994
CLEAN WATER ACT (CWA)		
Discharge of Oil: Notification Requirements	40 CFR Part 110	1987
Designation of Hazardous Substances	40 CFR Part 116	1978
Notice of Discharge of a Reportable Quantity	40 CFR Part 117	late 1970s
Spill Prevention, Control, and Countermeasures (SPCC) Requirements for Oil Storage	40 CFR Part 112	mid 1970s
General Provisions for Effluent Guidelines and Standards	40 CFR Part 401	1974
Toxic Pollutant Effluent Standards	40 CFR Part 129	1977
Effluent Guidelines and Categorical Pretreatment Standards	40 CFR Part 419	late 1970s - mid 1980s
Water Quality Standards for Toxic Pollutants	40 CFR Part 131	2/5/93
General National Pretreatment Standards	40 CFR Part 403	early 1980s
Great Lakes Water Quality Guidance	40 CFR Parts 9, 122, 123, 131, 132	early 1995
NPDES		
Stormwater Application, Permit, and Reporting Requirements Associated with Industrial Activities	40 CFR Part 122	5/4/92
Permit	40 CFR Parts 121-125	early 1980s
OIL POLLUTION ACT (OPA)		
Natural Resource Damage Assessments (NRDA) under National Oceanic and Atmospheric Administration	15 CFR Part 990	early 1996
Response Plans for Marine Transportation-Related Facilities (interim final rule)	33 CFR Parts 150, 154	1/19/93
Oil Pollution Prevention; Non-Transportation-Related Onshore Facilities	40 CFR Parts 9, 112	8/30/94
RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)		
Non-Hazardous Waste Requirements (Subtitle D)	40 CFR Parts 256, 257 (Federal guidelines for state/local requirements)	late 1970s, early 1980s
Subtitle C Requirements		
General Requirements for Hazardous Waste Management	40 CFR Part 260	late 1970s
Identification and Listing of Hazardous Wastes and Toxicity Characteristics	40 CFR Part 261	late 1970s
Standards Applicable to Generators of Hazardous Wastes		
Subpart A: General Provisions	40 CFR Part 262	early 1980s
Subpart B: Shipping Manifest	40 CFR Part 262	early 1980s
Subpart C: Packaging, Labeling, Marking, and Placarding	40 CFR Part 262	early 1980s
Subpart D: Recordkeeping and Reporting	40 CFR Part 262	early 1980s
Subparts E & F: Exports and Imports	40 CFR Part 262	early 1980s
Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities (and generally for Interim Status)		
Subparts A & B: General Provisions & Facility Standards	40 CFR Part 264 (265)	early 1980s
Subparts C & D: Preparedness, Prevention, & Emergency Plans	40 CFR Part 264 (265)	early 1980s
Subpart E: Recordkeeping/Reporting Requirements	40 CFR Part 264 (265)	early 1980s

Name	Code of Federal Regulation (CFR) Cite	Effective Date
Subpart F: Releases from Units	40 CFR Part 264	early 1980s
Subpart F: Groundwater Monitoring Requirements (Interim Status only)	40 CFR Part 265	early 1980s
Subpart G: Closure and Post-closure Requirements	40 CFR Part 264 (265)	1986
Subpart H: Financial Responsibility Requirements	40 CFR Part 264 (265)	early 1980s
Subparts I, J, K, & L: Use and Management of Containers, Tank Systems, Surface Impoundments, & Waste Piles	40 CFR Part 264 (265)	early 1980s (except tanks: 1986)
Liners and Leak Detection for Hazardous Waste Land Disposal Units	40 CFR Part 264 (265)	1992
Double Liners and Leachate Collection Systems for Hazardous Waste Disposal Units	40 CFR Parts 144, 264 (265)	1992
Subparts M, N, & O: Land Treatment, Landfills, & Incinerators	40 CFR Part 264 (265)	early 1980s
Subpart S: Corrective Action	40 CFR Part 264 (265)	1985 (1993)
Subparts AA, BB, & CC: Air Emission Standards for Process Vents; Equipment Leaks; & Tanks, Surface Impoundments, and Containers	40 CFR Part 264 (265)	
Phase I	40 CFR Part 264 (265)	1990
Phase II	40 CFR Part 264 (265)	1994
Standards for the Management of Specific Hazardous Wastes	40 CFR Part 266	1985
Land Disposal Restrictions	40 CFR Part 268	1986
Phase I: Contaminated Debris and Newly Identified Wastes, F037 and F038 Petroleum	40 CFR Parts 148, 268	1992, 1993
Phase II: Set Treatment Standards (BDAT) for TC Wastes and Establish Universal Treatment Standards	40 CFR Parts 148, 268	1994
Permits	40 CFR Parts 270, 271, 272	1980s
Standards for the Management of Used Oil: Used Oil Destined for Recycling	40 CFR Part 279	1993
Underground Storage Tanks: Technical Standards and Corrective Action	40 CFR Part 280	1988
SAFE DRINKING WATER ACT (SDWA)		
Underground Injection Control Regulations	40 CFR Parts 144, 146	12/16/93
SUPERFUND (CERCLA)		
Natural Resource Damage Assessments (also under CWA)	43 CFR Part 11	3/17/94
Reportable Quantities Releases (Notification to National Response Center)	40 CFR Part 302	mid 1980s
Extremely Hazardous Substances (EHSs) Emergency Planning	40 CFR Part 355	1987
EHS Release Notification (Notification to State Emergency Response Commission, Local Emergency Response Commission) and Follow-up	60 CFR Part 355	mid 1980s
Community Right-To-Know		
Hazardous Chemicals (Material Safety Data Sheet Chemicals) Inventory Reporting	40 CFR Part 370	late 1980s
Toxic Chemical Release Reporting	40 CFR Part 372	1988
Expansion of TRI List	40 CFR Part 372	11/30/94

Name	Code of Federal Regulation (CFR) Cite	Effective Date
TOXIC SUBSTANCES CONTROL ACT (TSCA)		
General Provisions	40 CFR Part 702	1982
Reporting and Recordkeeping Requirements	40 CFR Parts 704, 710	1988, late 1970s
Chemical Information Rule	40 CFR Part 712	1982
Health & Safety Data Reporting	40 CFR Parts 716	1986
Premanufacture Notification (and Exemptions)	40 CFR Parts 720 (723)	1983 (1995)
Significant New Uses	40 CFR Part 721	1988
Chromium Comfort D Cooling Towers	40 CFR Part 749	1990
Rules for Controlling Polychlorinated Biphenyls	40 CFR Part 761	1979
Asbestos-Containing Products Labelling Requirements	40 CFR Part 763	1979

Update of Appendix A[1]

Name	Code of Federal Regulation (CFR) Cite
CLEAN AIR ACT (CAA)	
New Source Performance Standards	40 CFR Part 60
Subpart CCCC: Commercial and Industrial Solid Waste Incineration Units	40 CFR Part 60
NESHAPS for Source Categories	40 CFR Part 63
Subpart EEE: Hazardous Waste Combustors	40 CFR Part 63
Subpart UUU: Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units (Refinery MACT II)	40 CFR Part 63
Subpart EEEE: Organic Liquids Distribution (Non-Gasoline)	40 CFR Part 63
Subpart FFFF: Miscellaneous Organic Chemical Manufacturing	40 CFR Part 63
Subpart YYYY: Stationary Combustion Turbines	40 CFR Part 63
Subpart GGGGG: Site Remidiation	40 CFR Part 63
Subpart LLLLL: Asphalt Roofing and Asphalt Processing	40 CFR Part 63
Subpart DDDDD: Industrial/Commerical/Institutional Boilers and Process Heaters	40 CFR Part 63
Subpart ZZZZZ: Reciprocating Internal Combustion Engines	40 CFR Part 63
Fuels	40 CFR Part 80
Subpart H: Tier II Gasoline Sulfur	40 CFR Part 80
Subpart I: Ultra Low Sulfur Highway Diesel	40 CFR Part 80
Subpart J: Mobile Source Air Toxics	40 CFR Part 80

[1] As of April 2004 Source: NPRA

Mr. OSE. Our next witness is Mr. Jeffrey Ports. Sir, you're recognized for 5 minutes.

Mr. PORTS. Good morning, Mr. Chairman and members of the subcommittee. My name is Mike Ports. I'm president of Ports Petroleum Co., an independent motor fuels marketer headquartered in Wooster, OH. I appear before the subcommittee today representing the Society of Independent Gasoline Marketers of America [SIGMA], and the National Association of Convenience Stores [NACS]. Thank you for inviting me to testify today.

Collectively, the members of SIGMA and NACS sell approximately 80 percent of the gasoline consumed in the United States every year. However, the vast majority of NACS members and all SIGMA members do not make gasoline and diesel fuel. SIGMA and NACS members are just as exposed as consumers to fluctuations in the overall supply, to volatility in the price of crude oil, and to the impact that volatility has on wholesale and retail motor fuel prices.

In fact, independent motor fuel marketers represent the closest proxy for gasoline and diesel fuel consumers that exists in the Nation's motor fuel refining and distribution industry today. Shortages in gasoline and diesel fuel supplies impact independent marketers first, before your offices begin to hear complaints from consumers and businesses about the retail price of gasoline and diesel fuel.

SIGMA's and NACS's message today to this subcommittee and to your colleagues in the House and Senate is really very simple. There are two main factors contributing to the high gasoline prices that motorists are paying this spring and early summer: one, high worldwide crude oil prices, and two, a very tight balance between gasoline supplies and consumer demand. There is very little that this subcommittee or this Congress can do legislatively in the short term to address either of these factors. However, SIGMA and NACS urge you and your colleagues to examine longer-term solutions to these problems so that the gasoline and diesel fuel price spikes we witnessed this year do not become the norm.

World crude oil prices rose precipitously over the first 6 months in the year. There are myriad reasons for these increases which have been addressed by others and which I will not cover here. The point I will make is that even if crude prices do fall significantly in the coming months, the second factor leading to the 2004 price spikes, tight gasoline supplies, will continue to exert significant upward pressure on gasoline prices in the future.

If Congress wants to prevent future gasoline price spikes, SIGMA and NACS suggest that it focus its legislative attention on three issues: the expansion of overall gasoline supplies, the restoration of gasoline fungibility, and the increase in domestic motor fuel refining capacity.

Simply stated, the ability of our Nation's motor fuel refining and distribution industries to increase gasoline production or transfer product from market to market in times of tight supplies and increasing wholesale and retail prices no longer exists. The environmental compliance burdens placed on the Nation's refining industry over the past 20 years has effectively destroyed the world's most efficient commodity manufacturing and distribution system.

To enhance the quality of our air, an objective of which SIGMA and NACS are completely supportive, the government has imposed on domestic refiners tens of billions of dollars in costs, and has fragmented the motor fuels distribution system into islands of boutique fuel. But, as for all other good things, there is a price for this cleaner air that ultimately must be paid by consumers of gasoline and diesel fuel.

If we collectively want to prevent future national and regional gasoline and diesel fuel price spikes, the current situation must be addressed and changed. There are no short-term fixes to the interrelated issues of increasing overall gasoline and diesel fuel supplies and preventing future price spikes. Therefore, SIGMA and NACS urge Congress to examine a broad slate of legislative initiatives to address these issues in the medium and long term.

No. 1, address boutique fuels by repealing the formulated gasoline oxygenate mandate, adopting a moratorium on new boutique gasoline and diesel fuels and conducting a detailed study to determine if the number of boutique fuels across the country can be reduced without sacrificing environmental protections or significantly reducing gasoline supplies.

Two, encourage expansion of existing domestic refining capacity by adopting regulatory reforms that clarify new-source review applicability to refinery expansions and streamlining the Federal and State permitting process for expanding existing refineries and building new refineries.

And three, incentivize investment in new refining capacity by adopting Federal tax incentives that encourage rather than discourage domestic refiners to expand capacity at existing facilities and build new facilities.

SIGMA and NACS believe that we as a nation are at a crossroads with respect to motor fuels. If we continue along our present path, balkanization will proliferate. Domestic refining capacity will continue to stagnate or decrease and increased motor fuel prices and periodic price spikes could become the norm rather than the exception.

We can either chart a different course or continue with the status quo. For independent motor fuel marketers and for your constituents, SIGMA and NACS hope that Congress leads the way to the new course.

Thank you again for inviting me to testify today. I would be pleased to answer any questions my testimony may have raised.

Mr. OSE. I thank the gentleman for appearing. I apologize for getting the name wrong. It's Mike Ports, not Jeff Ports.

[The prepared statement of Mr. Ports follows:]

TESTIMONY OF
MICHAEL PORTS
PRESIDENT, PORTS PETROLEUM COMPANY, INC.
REPRESENTING
THE SOCIETY OF INDEPENDENT GASOLINE MARKETERS OF AMERICA
AND
THE NATIONAL ASSOCIATION OF CONVENIENCE STORES
AT A HEARING OF
THE HOUSE COMMITTEE ON GOVERNMENT REFORM'S
SUBCOMMITTEE ON
ENERGY POLICY, NATURAL RESOURCES AND REGULATORY AFFAIRS
ON
"VOLATILITY OF U.S. GASOLINE MARKETS"

July 7, 2004

I. Introduction

Good morning, Mr. Chairman and members of the Subcommittee. My name is Mike Ports. I am President of Ports Petroleum Company, an independent motor fuels marketer headquartered in Wooster, Ohio. Ports Petroleum owns and operates 60 high volume unbranded retail motor fuels outlets. Our company operates these stores under the "Fuel Mart" name in 11 states from Ohio to Nebraska, south to Mississippi, and east to Georgia.

I appear before the Subcommittee today representing the Society of Independent Gasoline Marketers of America ("SIGMA") and the National Association of Convenience Stores ("NACS").

II. The Associations

SIGMA is an association of more than 250 independent motor fuel marketers operating in all 50 states. Last year, SIGMA members sold more than 58 billion gallons of motor fuel,

representing more than 32 percent of all motor fuels sold in the United States in 2003. SIGMA members supply more than 33,000 retail outlets across the nation and employ more than 360,000 workers nationwide.

NACS is an international trade association comprised of more than 1,700 retail member companies operating more than 100,000 stores. The convenience store industry as a whole sold 142.1 billion gallons of motor fuel in 2003 and employs 1.4 million workers across the nation.

III. The Role of Independent Marketers in the Gasoline Distribution Industry

Thank you for inviting me to testify today on the causes of price volatility in the United States gasoline markets, including the price increases we have witnessed in 2004. Collectively, the members of SIGMA and NACS sell approximately 80 percent of the gasoline consumed in the United States every year. However, the vast majority of NACS members and all SIGMA members do not "make" gasoline and diesel fuel. Instead, we are motor fuel marketers, purchasing gasoline and diesel fuel under contract or on the open market. As a result, SIGMA and NACS members are as exposed to fluctuations in the overall supply, and to volatility in the price of crude oil and the impact this volatility has on wholesale and retail motor fuel prices -- just as consumers are.

In fact, independent motor fuel marketers represent the closest proxy for gasoline and diesel fuel consumers that exists in the nation's motor fuel refining and distribution industry today. Shortages in gasoline and diesel fuel supplies, caused by world events, low inventories, refinery or pipeline outages or turnarounds, or simple, enduring stresses in the motor fuel distribution system, impact independent marketers first -- before your offices begin to hear complaints from consumers and businesses about the retail price of gasoline and diesel fuel.

IV. General Comments on the Causes of Price Volatility in U.S. Gasoline Markets

SIGMA's and NACS' message today to this Subcommittee, and to your colleagues in the House and Senate, is very simple. There are two main factors contributing to the high gasoline prices that motorists are paying this Spring and early Summer: (1) high worldwide crude oil prices; and, (2) a very tight balance between gasoline supplies and consumer demand. There is very little that this Subcommittee, or this Congress, can do legislatively in the short-term to address either of these factors. However, SIGMA and NACS urge you and your colleagues to examine longer-term solutions to these problems so that the gasoline and diesel fuel price spikes we witnessed this year do not become the norm.

I am sure that you have heard testimony from government witnesses this morning indicating that the 2004 gasoline price spike is easing. World crude oil prices have started to decline slowly. The same is true of wholesale and retail gasoline and diesel fuel prices across much of the nation.

The challenge we collectively face, however, is to maintain sufficient interest within this Congress to find a solution to the problems affecting the gasoline and diesel fuel markets even as the current price spike eases. If Congress fails to address these problems, simply because the public and media attention to gasoline prices might be subsiding, SIGMA and NACS assert that there is no reason to believe that such price spikes will not occur periodically and perhaps more frequently in the future because the fundamental problems that cause the spikes have not been addressed. We urge the House and the Senate to address the underlying causes of motor fuel price volatility legislatively this year if possible, or in the 109th Congress at the latest.

V. The Specific Causes of the 2004 Gasoline Price Spike

As I have stated, two fundamental factors have contributed to price increases in 2004. World crude oil prices rose precipitously over the first six months of this year. There are myriad reasons for these increases which have been addressed by others and which I will not cover here.

The point I will make is that even if crude prices do fall significantly in the coming months, the second factor leading to the 2004 price spikes -- tight gasoline supplies -- will continue to exert significant upward pressure on gasoline prices in the future. If Congress wants to prevent future gasoline price spikes, SIGMA and NACS suggest that it focus its legislative attention on three issues: the expansion of overall gasoline supplies, the restoration of gasoline fungibility, and the increase in domestic motor fuel refining capacity.

As an initial matter, I would note that none of the public policy initiatives SIGMA and NACS are discussing in our testimony today would benefit motor fuel marketers directly. Rather, they are aimed at restoring fungibility to the motor fuels market to improve overall supplies, at easing the movement of gasoline and diesel fuel into markets when shortages occur, and at increasing domestic refining capacity. If these initiatives increase the overall supply of domestically-produced gasoline and diesel fuel in this country by a mere five percent, SIGMA and NACS believe Congress will have taken significant and positive steps towards easing the upward pressure on gasoline and diesel fuel prices, increasing competition in the market, and reducing the frequency and magnitude of periodic price spikes.

The current statistics on the state of our nation's domestic refining industry and on levels of available gasoline supplies are well known to most policymakers. More than half the domestic refineries operating in 1981 are out of business today. A new refinery has not been built in this country in almost 30 years. The remaining refineries are operating at maximum

capacity on a daily basis in an effort to keep pace with demand. Consequently, the nation is becoming increasingly dependent on imports of gasoline and diesel fuel because the capacity of our nation's refineries is not expanding quickly enough to meet continually increasing consumer demand.

In order to understand fully the challenges we are facing, we must add to these bleak domestic refining capacity statistics the affect of the balkanization of the motor fuels markets into islands of "boutique" fuels over the past two decades. Twenty years ago, there were two blends of gasoline, offered in three octane levels, and essentially one blend of diesel fuel. Today, there are more than 18 unique blends of gasoline mandated across the nation -- again offered in three octane grades -- and at least three different blends of diesel fuel. And in most instances, gasoline or diesel fuel that is sold in one city can not be sold lawfully in another city -- even if that city is just across a state or county line several miles away.

Simply stated, the ability of our nation's motor fuel refining and distribution industries to increase gasoline production -- or transfer product from market to market -- in times of tight supplies and increasing wholesale and retail prices no longer exists. The environmental compliance burdens placed on the nation's refining industry over the past twenty years have effectively destroyed the world's most efficient commodity manufacturing and distribution system. To enhance the quality of our air, an objective of which SIGMA and NACS are completely supportive, the government has imposed on domestic refiners tens of billions of dollars in costs and has fragmented the motor fuels distribution system into islands of boutique fuels. But as for all other good things, there is a price for this cleaner air that ultimately must be paid by consumers of gasoline and diesel fuel.

As long as the motor fuels refining and distribution system works perfectly, supplies are adequate and retail prices remain relatively stable. However, if there are any new stresses placed on the system, such as a pipeline disruption or an increase in world oil prices, the industry no longer has the flexibility to react and counterbalance these forces.

If we collectively want to prevent future national and regional gasoline and diesel fuel price spikes, the current situation must be addressed and changed.

VI. Policy Recommendations

There are no short-term fixes to the inter-related issues of increasing overall gasoline and diesel fuel supplies and preventing future price spikes. Therefore, SIGMA and NACS urge Congress to examine a broad slate of legislative initiatives to address these issues in the medium- and long-term. These issues can be summarized as follows:

- Address boutique fuels -- repeal the reformulated gasoline oxygenate mandate; adopt a moratorium on new boutique gasoline and diesel fuels; and, conduct a detailed study to determine if the number of boutique fuels across the country can be reduced without sacrificing environmental protections or significantly reducing gasoline supplies;

- Encourage expansion of existing domestic refining capacity -- adopt regulatory reforms that clarify New Source Review applicability to refinery expansions and streamlines the federal and state permitting process for expanding existing refineries and building new refineries; and,

- Incentivize investment in new refining capacity -- adopt federal tax incentives that encourage, rather than discourage, domestic refiners to expand capacity at existing facilities and build new facilities.

I will discuss each of these initiatives in turn.

A. Address Boutique Fuels

First, the balkanization of our nation's fuels markets into distinct islands of boutique fuels must be stopped and, possibly, reversed. The first step toward achieving this goal is to repeal the federal reformulated gasoline program oxygenate mandate. This mandate is not necessary to

improve air quality and has led many states to adopt boutique gasolines over the past decade in order to avoid being forced to bring MTBE or ethanol into their markets. A repeal of the RFG oxygenate mandate is contained in the conference report on H.R. 6, the national energy policy legislation. SIGMA and NACS strongly support H.R. 6 and urge its adoption before Congress adjourns for the year.

The second step towards stopping further balkanization is to prevent additional boutique fuels from being mandated in the future. Over the next several years, many states will submit plans to implement the new ozone clean air standard. Many of these state implementation plans likely will contain additional proposals to further balkanize the gasoline and diesel fuel markets through the adoption of new fuel blends developed to address local and regional air quality concerns. SIGMA and NACS posit that there already is an ample slate of fuel blends from which these states can choose to achieve their air quality needs. H.R. 4545, a boutique fuels moratorium bill introduced by Congressmen Blunt and Ryan last month and supported by SIGMA and NACS, would put a stop of the balkanization of these markets. Although this bill failed to receive the two-thirds majority required under suspension of the rules, it did receive a clear majority of support when considered on the House floor last month. We urge the House to revisit H.R. 4545 in the near future.

Both H.R. 6 and H.R. 4545 contain provisions that require federal agencies to study ways to reduce the number of boutique fuels that already exist in the market. We strongly support these studies, but caution again that there is no short-term fix to this problem. Any proposal to reduce the number of fuels in this nation must be studied carefully with respect to the impact such reductions would have on overall gasoline supplies. Simply dictating arbitrarily that there

should be one, five, or ten blends of gasoline in the country may be irresponsible and may lead to supply shortages that could make the 2004 price spike look mild in comparison.

B. Regulatory Reform

Currently, a disincentive exists for domestic refiners to add new capacity to their existing facilities. If they expand capacity, they expose themselves to the potential application of EPA's New Source Review ("NSR") regulations, which could impose tens of millions of dollars in additional environmental protection costs. SIGMA and NACS urge Congress and EPA to move forward with NSR reform that will continue to protect the environment while enabling facilities to expand capacity and satisfy consumer demand.

Second, it is virtually impossible to obtain the necessary federal and state permits to expand an existing refinery or build a new one. SIGMA and NACS urge Congress to streamline this process, without sacrificing environmental protections, to encourage, rather than discourage, the expansion of domestic refining capacity. Last month, the House passed H.R. 4517, a refinery revitalization bill sponsored by Congressman Barton which takes important steps toward streamlining the permitting process in certain circumstances. We supported that bill and urge Congress to expand its provisions to further incentivize the additional expansion of domestic refining capacity.

C. Incentivizing Expansion of Refining Capacity

Congress has a choice to make with respect to motor fuel refining policy. It can continue down the path followed for the past two decades. This path, as we have witnessed, results in static or reduced domestic refining capacity, balkanization of the motor fuel markets, increased imports, increased volatility in wholesale and retail prices, and rising costs for consumers. Over

the past ten years, there has been disincentive for refiners to increase capacity due to the costs involved and the lack of opportunity to achieve a reasonable return on that investment.

Alternatively, we can embark on a different path. One that continues to encourage clean fuels. One that encourages, rather than discourages, expansion of domestic refining capacity. One that changes the fundamental economic calculus that a refiner makes when it decides whether to spend the huge sums necessary to make the upgrades required to produce clean fuels or to close the refinery.

SIGMA and NACS posit that Congress must adopt federal tax code changes to incentivize domestic refiners to expand refining capacity. Such changes could include faster depreciation periods for refining assets, the ability to expense environmental upgrades investments when capacity also is expanded, or an investment tax credit aimed at encouraging the construction of new, state-of-the-art, clean fuels refineries. Whatever course Congress chooses to follow, it is clear that the status quo does nothing to encourage expansion of domestic refining capacity. If we want capacity to increase, then we must change the fundamental economics of such expansions.

VII. The "Costs" of Environmental Protection

SIGMA and NACS are supportive of reasonable and scientifically-supported clean fuels programs and do not support any effort to "roll back" existing environmental protection programs.

However, it is disingenuous to state categorically that environmental protection programs have not contributed to increased retail gasoline price volatility. Environmental protection programs impact retail gasoline prices, directly and indirectly, in at least three ways -- each of which leads to upward pressure on retail prices.

First, as has been noted in numerous statements from the Environmental Protection Agency ("EPA") in its rulemakings covering both emissions from petroleum refineries and clean fuel programs, there are direct costs to these environmental protection programs. Simply stated, the nation's domestic refiners must expend billions of dollars to upgrade refining processes to reduce emissions and to produce cleaner fuels for the nation's consumers to use in their cars and trucks. EPA has variously estimated these costs as adding between 1 and 8 cents per gallon for each of the environmental protection programs covering the refining industry over the past decade, including the refinery MACT standards, the reformulated gasoline program, and the gasoline and diesel fuel sulfur reduction programs. In addition, EPA has predicted in each of these rulemaking proceedings that some refineries will not be able to make the investments necessary to achieve the new regulatory standards and will close. When the "cost" of environmental upgrades is added to the reduction in gasoline and diesel fuel supplies, the direct cost of environmental programs covering the domestic refining industry is easy to calculate.

Second, apart from direct costs of environment protection programs, there are substantial indirect costs that flow directly from the programs. As stated above, EPA repeatedly has estimated the "cost," on a cents per gallon basis, of numerous environmental protection programs. What these estimates ignore is that the direct "cost" of environmental upgrades constitutes only a small portion of the upward "price" pressure that these upgrades exert on gasoline and diesel fuel prices.

This disconnect between cost and price is a common economic principle. Diamonds have a high price not because the cost of production is high, but because diamonds are rare, demand for diamonds is high, and supplies of diamonds are limited.

The same analysis applies to gasoline and diesel fuel prices. While the cost of producing a gallon of gasoline or diesel fuel is relevant in terms of determining these products' wholesale and retail prices, it is the economic axiom of supply and demand that dictates the price consumers pay for gasoline and diesel fuel. Thus, while the direct cost increases associated with environmental protection programs may be measured in a few cents per gallon for each program, the analysis of the impact of these programs on the price of a gallon of gasoline or diesel fuel cannot cease once direct costs are considered.

Such an analysis also must consider indirect costs imposed by the combined impact of these environmental programs -- in terms of reducing the number of refineries producing these products, decreased outputs from operating refineries to produce these clean fuels, and the destruction of the fungibility of the domestic gasoline and diesel fuel markets -- to determine the true "cost" of these environmental programs. This complete analysis of "costs," direct and indirect, leads to the conclusion that the direct "costs" of environmental protection programs have little or no relationship to the "price" that these programs exact from consumers. In recent months, policy makers have come to understand that the indirect costs of these programs may in fact be substantially higher than the direct costs.

Third, as noted above, environmental protection programs -- most notably the reformulated gasoline oxygenate mandate -- have been responsible for the severe balkanization of the nation's gasoline (and, to a lesser extent to date, diesel fuel) markets into islands of unique "boutique" fuels. This reduction in gasoline fungibility, and the prohibition against moving an alternative blend of gasoline from an area with ample supplies to an area experiencing supply shortages, is directly responsible for the majority of the retail gasoline price spikes the nation has experienced over the past decade.

Again, the law of supply and demand operates effectively in the gasoline markets. If gasoline supplies in a region are low because of a natural disaster, a refinery or pipeline outage, or other distribution system problems, it generally is not lawful to supply that area with gasoline blends from surrounding areas because of environmental program restrictions. These artificial supply barriers impose a direct price penalty on consumers each time a supply shortage occurs.

To date, EPA has addressed severe supply shortages in various markets by granting temporary "enforcement discretion" letters for specific geographic areas. These temporary "waivers" permit non-compliant fuel to be sold in these areas for the duration of the supply crisis. SIGMA and NACS generally do not support such "waivers" of fuel specifications because they disadvantage stakeholders that have secured adequate supplies of compliant product in the covered market. More importantly, however, waivers are a short-term, ad-hoc solution to a longer term problem -- the gasoline and diesel fuel markets have been balkanized and supply crises will continue to occur periodically unless some rationality and fungibility is returned to the nation's motor fuel distribution system.

In sum, the assertion that no evidence exists that environmental protection programs have caused, in whole or in part, directly or indirectly, increased gasoline price volatility is simply wrong. Ample evidence exists of such a causal relationship to anyone who understands the fundamental rules of supply and demand or who drives a car or truck.

VIII. Conclusion

SIGMA and NACS believe that we as a nation are at a crossroads with respect to motor fuels. If we continue along our present path, balkanization will proliferate, domestic refining capacity will continue to stagnate or decrease, and increased motor fuel prices and periodic price spikes could become the norm, rather than the exception. We can either chart a different course

or continue with the status quo. For independent motor fuels marketers and for your constituents, SIGMA and NACS hope that Congress leads the way to the new course.

Thank you again for inviting me to testify today. I would be pleased to answer any questions my testimony may have raised.

Mr. OSE. Our next witness, joining us in the second panel, is Mr. Ben Lieberman, who's the director of air quality policy at the Competitive Enterprise Institute.

Sir, you're certainly—we're pleased to have you with us and you're recognized for 5 minutes to summarize.

Mr. LIEBERMAN. Good morning, Mr. Chairman and members of the subcommittee, and thank you for inviting me to testify. My name is Ben Lieberman, and I'm the director of air quality policy with the Competitive Enterprise Institute, a public policy organization committed to advancing the principles of free markets and limited government.

My comments today will focus on those measures I believe Congress should consider to reduce the likelihood and severity of future gasoline price increases, such as the one we have experienced in recent months.

Of course, there are several factors that influence the price of gasoline. Clearly, the rising price of oil is the single biggest reason for the 50-cent-per-gallon jump during the first 5 months of the year, but I am not going to say much about the price of oil because that's something largely outside of congressional control.

On the other hand, the complex Federal regulatory burden on gasoline also adds to the price of gas, and it is something that is very much within congressional control. So my comments will focus on just a few ideas for streamlining these gasoline regulations.

The current confusing patchwork of motor fuels is a relatively new phenomenon which got its start as the provisions in the 1990 Clean Air Act amendments took effect. Thanks to these new rules, we have something called "reformulated gasoline," which is supposed to help smog be reduced in nearly one-third of the Nation. We also have something called oxygenated gasoline to reduce carbon monoxide. Even conventional gasoline is subject to several requirements.

In addition, some States have come up with their own blends, as well, often in order to secure the needed EPA approval for their smog fighting plans. Overall, there are more than a dozen blends in use.

Not only do some of these blends cost more to make, but the logistical burden of having to separately refine, store and ship all of them adds at least a little to cost and also increases the incidence of localized shortages and price spikes.

RFG has cost 10 to 20 cents per gallon more than conventional gas in recent months, although only part of that is due to the higher cost of actually producing RFG. And these higher prices existing in some parts of the country, particularly California and the upper Midwest, can be traced to the more stringent regulations there, as well as some of the seasonal fluctuations. The tricky transition from winter grade to summer grade gasoline has been a problem in several springtimes in recent years.

Now, at the same time that we have these new rules, the environmental record is decidedly mixed. In fact, though air pollution has been declining for decades, the trends were really just as strong in the years before the experiment in boutique fuels was initiated in the 1990's as they have been since that time.

While the whole system is far from perfect, there are certain regulatory provisions that stand out as being particularly problematic. Most notably, the requirement that RFG contain 2 percent oxygen content has added to the cost of this fuel, but has done little to clean the air and has actually led to some water contamination concerns. The National Research Council has concluded that this requirement does little or no good, and an EPA expert panel has called for its elimination.

We are long overdue to streamline the unnecessarily complicated and costly maze of regulations that has been accumulating since 1990. The easiest place to start is with those provisions like the 2 percent oxygen content requirement that do far more economic harm than environmental good. Other provisions could be retained but modified to achieve the same effect in a more cost-effective manner.

And, just as important as streamlining the existing requirements is holding the line against expensive new regulatory or statutory provisions. This includes a new bill soon to be voted on in the Senate that's designed to fight global warming. According to analysis from the Energy Information Administration, the Climate Stewardship Act is estimated to add 9 percent to the price of gasoline by 2010 and 19 percent by 2025. Given the experience in the past few months, this is the last thing the driving public wants or needs.

Now, most of the opposition to gasoline regulatory reform comes from those arguing that even modest changes will have an adverse affect on air quality. These concerns are unfounded. Not only have we seen decades of improvements in air quality for reasons mostly unrelated to the use of boutique fuels, but we will continue to see this kind of progress for decades to come. The new Tier 2 motor vehicles, which will be phased in over the next few years, will be 70 to 90 percent cleaner burning than existing cars and trucks regardless of the fuel used to run them. In fact, studies have shown that fleet turn over from older and dirtier vehicles to cleaner new ones makes more of a difference than fuel changes.

So, as we move into the Tier 2 era in the years ahead, the justification for these alternatives to conventional gasoline will further decline. In sum, I would say there's plenty of room to make gasoline regulations more consumer friendly, and to do so within the context of continuing improvements in air quality.

Thank you.

Mr. OSE. I thank the gentleman for his testimony.

[The prepared statement of Mr. Lieberman follows:]

1001 Connecticut Avenue, NW, Suite 1250
Washington, DC 20036
Phone: (202) 331-1010 Fax: (202) 331-0640
www.cei.org

Statement of Ben Lieberman
Director of Air Quality Policy
Competitive Enterprise Institute
Before the
Subcommittee on Energy Policy, Natural Resources, and Regulatory Affairs
House Committee on Government Reform
July 7, 2004

INTRODUCTION

Good morning, Mr. Chairman and members of this subcommittee, and thank you for inviting me to testify. My name is Ben Lieberman and I am the Director of Air Quality Policy with the Competitive Enterprise Institute, a public policy organization committed to advancing the principles of free markets and limited government. My comments today will focus on those measures I believe Congress should consider to reduce the likelihood and severity of future gasoline price increases such as the one we've experienced in recent months.

Several factors influence the price of gasoline and are responsible for the 50 cent per gallon price rise from the beginning of the year through early June. There's no question that the most important one is the cost of oil. The price per barrel of crude began the year a bit above $30 per barrel, and reached $42 on June 1st before falling back to $36 - $38. Oil is responsible for nearly half the price at the pump, and every dollar

per barrel increase translates into roughly 2.5 cents more per gallon of gas. The jump in oil prices explains more than half of the national average increase from $1.50 to over $2.00 per gallon of gas.

While the global price of oil is the single biggest reason for the gas price spike of 2004, it is also something that is largely beyond Congressional control. There is only so much that can be done to influence such factors as OPEC production quotas, political turmoil and terrorism in oil producing nations, oil worker strikes, and the global demand for oil. Yes, Congress could allow increased domestic oil production, including the billions of barrels of recoverable oil in a small portion of the Arctic National Wildlife Refuge (ANWR).[1] More domestic output would help lower prices at least a little over the long term, but there are factors beyond the price of oil that that Congress should be considering.

Obviously, we don't put oil into our fuel tanks, it first has to be refined into gasoline and diesel fuel. And it is at this step that the federal government has created a regulatory burden that has also contributed to higher prices. Unlike the price of oil, which has fluctuated in recent years and will likely continue to do so, this regulatory burden has steadily increased and is set to get even more stringent in the years ahead. And unlike oil, the cost of these federal regulations is squarely within Congressional control. My testimony will focus on ideas for reducing these regulatory costs.

THE REGULATORY BURDEN

Prior to 1990, the composition of motor fuels was not extensively regulated by the federal government. Other than the phaseout of leaded gasoline and a few other

[1] US Geological Survey, "Arctic National Wildlife Refuge, 1002 Area, Petroleum Assessment, 1998, Including Economic Analysis."

measures, the 1970 Clean Air Act (CAA) focused on reducing motor vehicle emissions by regulating the vehicles themselves. This effort has been a success. Even with substantial increases in vehicle miles traveled, overall motor vehicle and industrial emissions have declined substantially, as have ambient pollution concentrations.[2] Cars and trucks on the road today emit only a fraction of the pollution as compared to their counterparts in the 1970s, and these improvements show no signs of slowing down.[3]

The CAA's emphasis changed with the 1990 CAA Amendments, which contain extensive motor fuel requirements.[4] Specialized blends, namely reformulated gasoline (RFG) and oxygenated gasoline, were mandated for certain parts of the country. The CAA also set standards applicable to conventional gasoline, and gave the Environmental Protection Agency broad discretion to create additional fuel specifications.[5]

At the same time, California has continued to set its own gasoline requirements, and many other states and localities have set fuel specifications of their own, often in order to obtain the necessary EPA approval of their State Implementation Plans (SIPs). Each state must have a SIP for meeting the CAA's requirements. With the stringent new National Ambient Air Quality Standard (NAAQS) for ozone, the pressure on some states to switch from conventional gasoline to something else may increase.

More than a dozen different blends are currently required throughout the nation. As recently as the early-1990s gasoline was essentially a national commodity, but today

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[2] Environmental Protection Agency, "National Air Quality and Emissions Trends Report: 2003 Special Studies Edition," Sept. 2003, pp. 1-5.
[3] Joel Schwartz, American Enterprise Institute, "No Way Back: Why Air Pollution Will Continue to Decline," 2003.
[4] 42 USC § 211.
[5] 42 USC § 211(c) ("The Administrator may, from time to time . . . control or prohibit . . . any fuel or fuel additive . . . if in the judgment of the Administrator any emissions product of such fuel or fuel additive causes, or contributes, to air pollution which may reasonably be anticipated to endanger the public health or welfare.")

there are many so-called "boutique fuels" in use. This both adds permanent costs to gasoline, and increases the likelihood of localized shortages and price spikes.

A. Reformulated Gasoline

Perhaps the single most problematic of these provisions is the requirement for RFG, designed to fight smog.[6] RFG is mandated for the nine smoggiest areas of the country (based on 1987-1989 measurements) as well as any other area designated by EPA as in severe non-attainment for ozone.[7] In total, nearly one-third of the nation's fuel supply is RFG.

The RFG program first took effect in 1995. RFG must meet several compositional requirements and performance standards designed to make it cleaner burning than conventional fuels. In addition, there are separate RFG formulations for northern states and southern states, and summer-specific requirements applicable between June 1 and September 15th of each year.

The transition from winter to summer grade RFG is particularly challenging, especially after the requirements for RFG became more stringent in 2000 (RFG II). The introduction of RFG II was identified by the Federal Trade Commission as one of the primary factors behind the Midwest price spike in the spring of 2000.[8] It likely contributed to a similar price spike the following year.

In recent months, RFG has averaged 10 to 20 cents per gallon more than conventional gas, though part of the difference is due to factors other than higher costs of

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[6] 42 USC § 211(k).

[7] RFG is required in all or parts of California, Connecticut, Delaware, District of Columbia, Georgia, Illinois, Indiana, Louisiana, Maryland, New Jersey, New York, Pennsylvania, Texas, Virginia, and Wisconsin. Environmental Protection Agency, "Reformulated Gasoline: Map of Current RFG Areas and County Listings by State," available at http://www.epa.gov/otaq/rfg/whereyoulive/htm.

[8] Federal Trade Commission, "Midwest Gasoline Price Investigation," March 29, 2001.

producing RFG.[9] As with many specialized blends, RFG adds to consumer costs in other ways as well, most significantly by delivering 1.5 to 2.0 percent lower fuel economy as compared to conventional gasoline.[10]

Despite the higher cost, there are questions about the environmental benefits of RFG. Although mandated primarily to help reduce ozone, it is unclear, despite nearly a decade of use, whether RFG has made a difference. A 1999 National Research Council report concluded that "[a]lthough long-term trends in peak ozone in the United States appear to be downward, it is not certain that any part of these trends can be significantly attributed to the use of RFG."[11]

Beyond its questionable air quality record, RFG has caused water contamination concerns. The CAA requires RFG to contain 2 percent oxygen content by weight. This necessitates the addition of so-called oxygenates, either methyl tertiary butyl ether (MTBE) or ethanol. Compared to ethanol, MTBE proved cheaper and easier to incorporate into the fuel supply and became the oxygenate of choice in 85 percent of RFG. Only a few Midwestern markets, including Chicago and Milwaukee, initially chose ethanol as the oxygenate. But due to concerns about MTBE contamination of water supplies, that number has increased.

In 1999, EPA issued a report calling for reductions in MTBE use in fuels due to its effect on water supplies.[12] California, New York, Connecticut and other states have

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[9] Energy Information Administration, "Retail Gasoline Prices by Region by Grade by Formulation," available at: http://www.eia.doe.go_v/oilgas/petroleum/data_publications/wrgp/prices_by_region_by_grade_by_formulation.html

[10] Energy Information Administration, "Demand and Price Outlook for Phase 2 Reformulated Gasoline, 2000," p. 17.

[11] National Research Council, "Ozone Forming Potential of Reformulated Gasoline," 1999, p. 4.

[12] Environmental Protection Agency, "Achieving Clean Air and Clean Water: The Report of the Blue Ribbon Panel on Oxygenates in Gasoline," September 15, 1999.

since acted to ban the use of MTBE. However the federal RFG mandate and its 2 percent oxygen content requirement remain in place. Thus, these states have replaced MTBE with ethanol. The pending energy bill would eliminate the 2 percent oxygen content requirement entirely.

B. Other Requirements

The winter oxygenated fuels program has been in place since 1992 and is required in those areas not in attainment with the NAAQS for carbon monoxide.[13] Though the carbon monoxide problem is rapidly diminishing (and in fact was already doing so in the years before oxygenated gas was introduced) it is still used in a number of markets, including some that must also comply with the RFG mandate.[14]

Even conventional gasoline is subject to several requirements, and its composition varies with geographic location and time of year.[15]

Between conventional and reformulated gasoline are a number of fuels unique to particular states or metropolitan areas within states. Although smog has been declining for decades, many states still have areas not in attainment with the federal ozone standard. In several instances, these states faced difficulties obtaining the required federal approval for their ozone SIPs if they used conventional gas. Since these states did not want to be saddled with RFG and its strict requirements, they devised intermediate

[13] 42 USC § 211(m).
[14] Note 2, at 9-12; Environmental Protection Agency, "State Winter Oxygenated Fuel Program Requirements for Attainment or Maintenance of CO NAAQS," October 2001, available at http://www.epa.gov/otaq/regs/fuels/oxy-area.pdf.
[15] 42 USC §211 (c) and (h); Environmental Protection Agency, "Guide on Federal and State RVP Standards for Conventional Gasoline Only," March 2000.

blends, typically requiring either lower Reid Vapor Pressure (RVP, a measure of fuel volatility) and/or lower sulfur content than conventional gasoline.[16]

C. The Balkanizing Effect

A consumer buying gas in an area using RFG or another specialized blend must pay the added costs of that blend. In addition, all drivers pay at least a little more because of the balkanizing effect of so many distinct gasoline recipes simultaneously in use. Several of these blends have to be separately refined, stored and shipped.[17] This adds further strain to an already-stretched motor fuels infrastructure.

The balkanizing effect has also increased the likelihood of shorter-term price spikes in specific markets. In 1999, the EIA noted that "the proliferation of clean fuel requirements over the last decade has complicated petroleum logistics," and predicted that "additional clean fuels programs could make the system more vulnerable to local outages and price spikes."[18] This has proven to be the case, especially in California and the upper-Midwest.[19]

D. The Expanding Regulatory Burden

While the existing fuel rules remain in effect, new ones are constantly being added. 2004 is the first year of new low-sulfur requirements for gasoline.[20] The state-level MTBE bans in California, New York, and Connecticut also took effect this year. Each new rule not only adds to the long-term cost of gasoline, but can create short-term

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[16] Environmental Protection Agency, "Staff White Paper: Study of Unique Gasoline Fuel Blends ('Boutique Fuels'), Effects on Fuel Supply and Distribution and Potential Improvements," October 2001, pp. 13-15.
[17] Note 10, at 8-12.
[18] Note 10, at 8.
[19] Energy Information Administration, "Gasoline Type Proliferation and Price Volatility," Sept. 2002, pp. 4-7.
[20] 64 Fed. Reg. 26,004 (May 13, 1999).

transitional costs as the bugs are worked out during the first few months of implementation.

Looking further out, states have until 2007 to come up with plans for dealing with the new ozone NAAQS. Last April, EPA announced that 474 counties nationwide are not in attainment with the new standard.[21] This includes nearly 100 counties currently in compliance with the previous ozone standard, and others likely to have met this standard within the next few years. Non-attainment states have three years to revise their SIPs, and some currently using conventional gas may have to adopt low-RVP or another specialized blend in order to secure EPA approval.

Given the open-ended CAA language regarding EPA's authority to regulate motor fuels, as well as the possibility of environmental organizations filing lawsuits forcing the agency's hand, more fuel regulations are entirely possible.

New statutory provisions, including those that attempt to deal with global warming, could also add to the burden on the driving public. Last year, the Climate Stewardship Act, S. 139, was defeated in the Senate by a vote of 55-43. This bill would regulate emissions of carbon dioxide, the main anthropogenic greenhouse gas. Transportation accounts for nearly one third of such emissions.[22] Thus, any serious effort to control carbon dioxide would add significantly to the cost of motor fuels. An amended version of the Climate Stewardship Act, SA 2028, has recently been introduced, and may come to a Senate vote in the near future. An EIA analysis of this bill estimates that it would add 9 percent to the price of gasoline by 2010 and 19 percent by 2025, though the

[21] Environmental Protection Agency Press Release, "EPA Issues Designations on Ozone Health Standards," April 15, 2004.
[22] Stacy C. Davis, Office of Transportation Technology, US Department of Energy, "Transportation Energy Data Book," 1999, p. 3-7, table 3.6.

analysis concedes considerable uncertainty.[23] A House of Representatives version, H.R. 4067, has also been introduced.

IDEAS FOR REFORM

The 1990 CAA Amendments were a bipartisan effort. Based on what we have learned from fourteen years' experience, it is time for Congress to review and revise the law. Even if a major overhaul of the CAA motor fuel provisions is too ambitious a task right now, some targeted streamlining of a few provisions could provide benefits to the driving public.

The easiest place to start is by eliminating those provisions, most notably the 2 percent oxygen content requirement for RFG, that increase the cost of gasoline without providing an appreciable environmental benefit. Another logical target is any specialized blend, such as winter oxygenated fuel, that has outlived its usefulness. Other motor fuel provisions could be retained but modified to achieve the same air quality improvements in a more cost-effective manner.

As a guiding principle, the federal government should limit its role to setting environmental end goals for motor fuels, but should not go so far as to dictate specific ingredients and recipes by which those goals are met. This guiding principle could go a long way towards adding needed flexibility to the system. For this reason, the motor fuels provisions in the energy bill can best be described as a mixed bag. The proposed elimination of the 2 percent oxygen requirement for RFG is a step in the right direction, but the proposed mandate that a specified amount of ethanol be added to the fuel supply is a step in the wrong direction.

[23] Energy Information Administration, "Analysis of Senate Amendment 2028, the Climate Stewardship Act of 2003," May 2004, p. 5.

Just as important as streamlining the existing requirements is holding the line against potentially expensive new ones. Debate over any new fuels provisions, whether additional CAA rules, an ethanol mandate, or new laws designed to combat global warming, must take into account realistic assessments of the likely impact on the price of gasoline - something that has not always happened in the past.

Most of the opposition to gasoline regulatory reform comes from those arguing that any changes will have an adverse impact on air quality. These concerns are unfounded. EPA's own data demonstrates that both motor vehicle and overall emissions controlled under the Clean Air Act have declined substantially in recent decades.[24] For example, emissions of nitrogen oxides and volatile organic compounds, the two automotive pollutants responsible for smog, reached a record low in 2003, according to EPA.[25] And, although these trends are continuing, it is also worth noting that they have not accelerated as a result of the experiment in boutique fuels initiated during the 1990s.

Despite past and inevitable future increases in vehicle miles traveled, emissions will continue their long-term downward trend.[26] By one estimate, based on data from vehicle inspection programs and on-road remote sensing and tunnel studies, motor vehicle emissions are declining by 5 to 15 percent annually, while miles traveled are increasing by about 1 to 3 percent per year.[27] Fleet turnover, from older and dirtier

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[24] Note 2, at 1-5.
[25] Environmental Protection Agency, "The Ozone Report: Measuring Progress Through 2003," April 2004, p. 5.
[26] Andrew J. Kean et al., Society of Automotive Engineers, "Trends in Exhaust Emissions from In-Use California Light-Duty Vehicles, 1994-2001," 2002; Sajal S. Pokharel et al., "Emissions Reductions as a Result of Automobile Improvement," Environmental Science and Technology, vol. 37, 2003, pp. 5097-5101.
[27] Note 3, at 19.

vehicles to cleaner new ones, has a considerably greater overall impact on emissions than fuel changes.[28]

The new Tier 2 standards, which apply to every on-road vehicle and will be phased in over the next several years, ensure that these trends will continue for decades to come.[29] Under these standards, a typical new car or truck, operating on any fuel, will be 70 to 90 percent cleaner than the one it replaces. Indeed, a Tier 2 vehicle operating on conventional gas will have lower emissions than a mid-1990s vehicle operating on any specialized blend.

In sum, there is plenty of room to make gasoline regulations more consumer-friendly, and to do so within the context of continued improvements in air quality.

Fortunately, gasoline prices have been coming down in the past few weeks, and we can only hope this trend continues. But even if we have turned the corner on the gas price spike of 2004, this is no time for complacency. We have seen enough episodes of high gas prices in recent years to know that they will return. Streamlining and simplifying the still-growing regulatory burden should be part of an ongoing effort to ensure that future gasoline prices are as affordable as the market will allow.

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[28] Kean et al., note 26, at 4.
[29] 65 Fed. Reg. 6,698 (February 10, 2000); 66 Fed. Reg. 5,002 (January 18, 2001).

Mr. OSE. Our fourth witness on the second panel is Mr. Blake Early, who has been with us before.

Sir, it's good to see you. I see your family has joined you today. You're recognized for 5 minutes to summarize.

Mr. EARLY. Thank you, Mr. Chairman. You can call me Blake.

Mr. OSE. Blake, you need to turn on your mic. There you go.

Mr. EARLY. Thank you, Mr. Chairman. It's fine to call me Blake.

I'm pleased to be here today on behalf of the American Lung Association, celebrating its 100th anniversary this year. The American Lung Association has been working to promote lung health through the reduction of air pollution for over 30 years, and I'm happy to be here to discuss the elements of the Clean Air Act that impact the oil refinery industry and gasoline prices.

I'm going to focus on the reformulated gasoline and low sulfur requirements for gasoline, on road diesel, and nonroad diesel fuel which we believe to be—have the biggest impact on the oil refining industry.

RFG has been shown by EPA in California to be a cost-effective program to reduce vehicle emissions that contribute to ozone and reduce toxic air pollution from vehicles by 30 percent. Low sulfur gasoline, low sulfur on road diesel and nonroad diesel requirements, issued by both the Clinton and Bush administrations, are key to enabling a new generation of emissions controls on everything from SUVs to diesel trucks, to earth movers. These requirements will reduce smog, reduce fine particulate and toxic air pollution and save tens of thousands of lives, heart attacks, respiratory-related hospitalizations and reduce thousands of asthma attacks among children each and every year.

The monetized benefits from these sulfur fuel programs are enormous, calculated to approximate $24, $51 and $53 billion each year for each of these three low sulfur programs when they are fully implemented. The sulfur limits for these gasoline and diesel fuel requirements do serve to make fuel more fungible because they will apply to all gasoline and all diesel.

Any attempt to modify these rules at this juncture without thorough evaluation risks disrupting these programs in ways that could reduce or delay the large public health benefits we need them to deliver.

Those who propose to change these rules bear a heavy burden of showing the need and demonstrating the benefit. This is because air pollution still threatens millions of Americans. A recent American Lung Association study found 441 counties, home to 136 million people, have monitored unhealthy levels of ozone and fine particles.

We believe that should Congress choose to change the law or gasoline policy, it should do so in ways that make it easier for areas with dirty air to adopt clean fuels programs and not lock into the use of dirtier or conventional fuels.

There is no evidence that current clean fuel programs significantly influence current gasoline price increases. Prices for both clean fuels and conventional gasoline have risen at the same rate broadly across the Nation, and prices for clean fuels generally have not risen faster for clean fuels than they have for conventional fuels. In some cases, conventional gasoline is more expensive or the

same as RFG; and my testimony includes a chart which demonstrates this fact. It's an informal chart and not intended to be very precise. We think that perhaps the EIA should pursue this more thoroughly.

The one clean fuel requirement that contributes to price volatility is the Federal oxygen requirement. The one thing the Bush administration should do is grant California's request for an oxygenate waiver. Granting the waiver would improve the air quality and reduce gasoline prices in California and probably other parts of the country. EPA has been avoiding a decision on this urgent matter and treating it as a routine matter.

I introduce for the record, Mr. Chairman, a letter sent to Administrator Leavitt just yesterday, endorsing and asking him to grant the California waiver request. It's signed by nine health and environmental organizations.

[The information referred to follows:]

American Lung Association * Clean Air Trust Education Fund
Environmental Defense * National Environmental Trust
Natural Resources Defense Council * Our Children's Earth Foundation
Physicians for Social Responsibility * Sierra Club
U.S. Public Interest Research Group

July 6, 2004

Dear Administrator Leavitt:

To reduce air pollution and protect public health, we urge you to grant California's waiver of the oxygen content requirement for reformulated gasoline. Nearly a year ago, the 9th Circuit Court of Appeals vacated EPA's order denying a request by Governor Gray Davis that the two percent minimum oxygen content requirement for reformulated gasoline be waived. The waiver request was precipitated by California's ban on the use of MTBE and the consequent need to use ethanol in every gallon of reformulated gasoline sold in California to meet the federal oxygen requirement. The court remanded the request to EPA with instructions to reconsider whether the "oxygen requirement" interferes with California's ability to meet the health-based National Ambient Air Quality Standards (NAAQS) for ozone and particulate pollution. On October 30, 2003, the court refused to reconsider its decision.

Since that time, Governor Schwarzenegger has requested a prompt waiver request decision, and the California EPA has submitted additional data in support of the waiver request, including data showing that the use of ethanol to meet the federal oxygen requirement increases smog- and soot-forming nitrogen oxide emissions from vehicles and contributes to violations of both the coarse (PM 10) and fine (PM 2.5) particle NAAQS compared to the use of California's Cleaner Burning Gasoline (CBG) without minimum oxygen levels. In California, the federal oxygen requirement met with ethanol exacerbates already unhealthy levels of air pollution throughout the state.

As you know, the nation has been in the grip of the largest increase in gasoline prices in decades. These increases are particularly painful in California, which historically has experienced the highest gasoline prices in the country. By all accounts, granting California's waiver request would increase the flexibility California refiners have to produce CBG and could lower gasoline prices. The reduced need for ethanol in California, the largest in the nation, might even lower the cost of gasoline containing ethanol sold elsewhere across the country.

Even though EPA has been under court order to reconsider California's oxygen waiver request since late October 2003, recent news accounts cite EPA as giving the matter only "normal review."

We believe the need to grant California's oxygen waiver request is urgent. It would benefit public health and the environment and could very well lower gasoline prices almost immediately. We urge you to grant the waiver.

Sincerely,

Paul G. Billings
Vice President for National Policy and Advocacy
American Lung Association

Emily Figdor
Clean Air Advocate
U.S. Public Interest Research Group

Karen Wayland
Legislative Director
Natural Resources Defense Council

Kyle Kinner
Legislative Director
Physicians for Social Responsibility

Frank O'Donnell
Executive Director
Clean Air Trust Education Fund

Debbie Boger
Deputy Legislative Director
Sierra Club

John Stanton
Vice President
National Environmental Trust

Elizabeth Thompson
Legislative Director
Environmental Defense

Tiffany Schauer
Executive Director
Our Children's Earth Foundation

Mr. EARLY. This is a very urgent matter. We believe that the agency is dragging its feet. It has had information available to it on the California waiver since the year 2000, so when Mr. Holmstead says, gee, this is really complicated and we have to look at the information, he's had about 4 years. And we fully support it. And, of course, I would observe that every member of this panel supports it.

We hope that maybe we can get this done and have a favorable impact both on the environment and on gasoline prices in California.

Thank you, Mr. Chairman.

Mr. OSE. I thank the gentleman. The letter he referenced without objection will be made a part of the record.

[The prepared statement of Mr. Early follows:]

Statement of A. Blakeman Early before the

Subcommittee on Energy Policy, Natural Resources, and Regulatory

Affairs, House Committee on Government Reform

July 7, 2004

Mr. Chairman and members of the committee, my name is A. Blakeman Early. I am pleased to appear today on behalf of the American Lung Association. Celebrating its 100th anniversary this year, the American Lung Association has been working to promote lung health through the reduction of air pollution for over thirty years. I am here today to discuss elements of the Clean Air Act that impact the oil refining industry and gasoline prices.

Clean Fuels Are a Cornerstone of the Clean Air Act

The Clean Air Act programs that we believe most affect the refining industry are the Reformulated Gasoline Program (RFG) and the low-sulfur requirements for gasoline, on-road diesel, and off-road diesel fuel. We recognize that there are important stationary source requirements of the Clean Air Act that impact the refining industry. However, because of their importance, I will limit my comments to the most significant fuel requirements of the law.

Reformulated Gasoline

As has been demonstrated in California and across the nation, reformulated gasoline can be an effective tool in reducing both evaporative and tailpipe emissions from cars and trucks that contribute to smog. Based on separate cost effectiveness analyses by both

EPA and California, when compared to all available emissions control options, reformulated gasoline (RFG) is a cost-effective approach to reducing the pollutants that contribute to smog.[1] Compared to conventional gasoline, RFG has also been shown to reduce toxic air emissions from vehicles by approximately 30 percent.[2] A study done by the Northeast States for Coordinated Air Use Management, an organization of state air quality regulators, estimated that ambient reduction of toxic air pollutants achieved by RFG translates into a reduction in the relative cancer risk associated with conventional gasoline by a range of 18 to 23 percent in many areas of the country where RFG is used.[3]

The benefits from RFG accrue from evaporative and tailpipe emissions reductions from vehicles on the road today, as well as from non-road gasoline powered engines, such as lawn mowers. They begin as soon as the fuel is used in an area. As with most Clean Air Act programs, the RFG program has cost less than estimated and the emissions benefits have been greater than expected or required by law. It is no wonder that RFG or other clean gasoline programs are in use in 15 states, according to EPA.

Low Sulfur Conventional Gasoline

This year begins the phase in of sulfur reduction requirements for all gasoline, which will be fully implemented by the end of 2006. These requirements derive from the Tier 2/Gasoline Sulfur rule issued during the Clinton Administration. This program is even more significant than the RFG program because the lower sulfur levels required in

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[1] U.S. Environmental Protection Agency, Regulatory Impact Analysis, 59 FR 7716, docket No. A-92-12, 1993.
[2] Report of the Blue Ribbon Panel on Oxygenates, September 1999, pp.28-29.
[3] Relative Cancer Risk of Reformulated Gasoline and Conventional Gasoline Sold in the Northeast, August 1998, p. ES-6, found at www. Nescaum.org.

conventional gasoline will reduce tailpipe emissions from vehicles and other engines used today not just in RFG areas, but virtually across the nation. More importantly, the limit on sulfur in gasoline enables the use of very sophisticated technology on a new generation of gasoline- powered vehicles (including SUVs) that will generate very low rates of tailpipe emissions. These emissions reductions will grow as the new cleaner vehicles replace older dirtier ones. This program is so important to offset the growth in vehicle emission attributable to the fact that each year more people are driving more vehicles more miles than ever before. The Tier 2/Gasoline Sulfur requirements will replace and unify varying sulfur limits found in so-called "boutique" fuels standards as well as RFG. In other words, all gasoline sold in the nation will meet the same sulfur limits, except in California.

The estimated benefits from the Tier2/Gasoline Sulfur rule will be enormous. EPA estimates that when fully implemented, the program will reduce premature mortality, hospital admissions from respiratory causes and a range of other health benefits that have a monetized benefit of over $24 billion **each year.**[4] The actual benefits will likely be higher if history is any guide in these matters.

At this point I am going to say something unexpected. It is important to note that with respect to the RFG program and the Tier 2 sulfur reduction program the refining industry is getting the job done and at a cost below what it and others predicted. Moreover, refiners are reducing toxic emissions from RFG by a significantly larger percentage than the minimum required by the Clean Air Act Some refiners, such as BP have met low sulfur goals ahead of legal requirements and are using their success as a marketing tool

[4] Tier 2/Sulfur Regulatory Impact Analysis, December 1999, p. VII-54.

and even have received public recognition from American Lung Association state affiliates. We at the American Lung Association want to give credit where credit is due.

Low Sulfur On-Road Diesel Fuel

While the Tier 2 rule was issued by the Clinton Administration, the value of clean fuels has not been lost on the Bush Administration. The Heavy Duty Diesel Engine/Diesel Fuel rule was first issued in the Clinton Administration and was reaffirmed by the Bush Administration in January 2000. Like the Tier 2 rule, this rule will provide immediate benefits from reductions of both NOx and particulate emissions from diesel fueled vehicles on the road today but also enable the application of new technology to a new generation of heavy duty diesel engines used in trucks and buses in the future that will reduce particle and NOx emissions from the vehicles by 90%. The sulfur reduction requirements for on-road diesel fuel are phased in beginning in 2007.

Diesel emissions are an important contributor of NOx, a precursor of smog. More importantly, heavy-duty diesel emissions generate a large amount of fine particle air pollution that is associated with premature mortality and cancer. The EPA estimates that when fully implemented, the HD Diesel Engine/Diesel Fuel rule will provide health benefits that approximately double the Tier 2 rule at a monetized calculation of nearly $51 billion **each year**.[5]

Finally, in further recognition of the importance diesel emissions play as a contributor to both smog and fine particle pollution, the Bush Administration just issued in May a new Off-Road Diesel Engine/Diesel Fuel rule Through phased reductions of sulfur in off-road

[5] HD Engine/Diesel Fuel Regulatory Impact Analysis, January 18, 2001, p. VII-64.

diesel fuel this rule will achieve immediate emissions reductions from a diverse group of diesel engines used in construction, electricity generation and even trains and marine vessels. The clean fuel requirements of this rule, too, will enable a new generation of much cleaner off-road diesel engines which will result in lower diesel emissions far into the future as older engines are replaced.

My understanding is that the estimate of health benefits from this rule will be even greater than the HD Engine/Diesel Fuel rule in large part because this category of engines and their fuel have been under regulated in comparison to other engine sectors. EPA projects that, when fully implemented, health benefits to include: 12,000 fewer premature deaths, 15,000 fewer heart attacks, 6,000 fewer emergency room visits by children with asthma, and 8,900 fewer respiratory-related hospital admissions **each year.**[6]

We Oppose Changes to Clean Fuels Programs That Weaken or Delay Emissions Reductions

Each of the regulations implementing the clean fuels programs and requirements were the product of a broad, lengthy and public process that ultimately reached a delicate political and substantive compromise. No party got everything it wanted. Each rule provides large and critical emissions reductions needed to protect public health. **Any attempt to modify these rules at this juncture without thorough evaluation risks disrupting these programs in ways to could reduce or delay the large public health benefits we need them to deliver. Such changes also risk penalizing those refiners who have made the commitment to meet the requirements of these programs, some times**

[6] EPA Regulatory Announcement: Public Health and Environmental Benefits of EPA's Proposed Program for Low-Emission Nonroad Diesel Engines and Fuel. April 2003.

earlier than required. Those who propose changes bear a heavy burden of showing the need and demonstrating the benefit.

Air Pollution Still Threatens Millions of Americans

Although we have made important progress in reducing air pollution, the battle is far from being won. This is true in part due to improved research in recent years which indicates that exposure to lower levels of smog over longer periods can have adverse health effects. The adverse impact of smog is being magnified also by the increase in the number of people with asthma. Smog is an important trigger of asthma attacks. New research has also revealed the lethality of so-called fine particle air pollution not only among those previously known as vulnerable such as people with asthma or chronic lung disease, but also among those with cardiovascular disease. This research is the foundation of the establishment of the eight-hour NAAQS for ozone and the NAAQS for PM 2.5 promulgated in 1997. Additional research since then has reinforced the need for these standards.[7]

The senate received testimony from Dr. George Thurston, a leading air pollution researcher, just a few weeks ago demonstrating that the progress in reducing eight-hour levels of ozone has stalled in recent years. A graph in his testimony, based on EPA monitoring data shows the decline in eight-hour ozone levels to be essentially flat between 1996 and 2002.[8]

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[7] See Annotated Bibliography of Ozone Health Studies, January 27, 2003 and Fact Sheet on Fine Particles, May 2003 at www.cleanairstandards.org a website of the American Lung Association

[8] Statement of George D. Thurston, Sc.D., before the Senate Environment and Public Works Committee, April 1, 2004, p.6.

At the end of April, the American Lung Association released its State of the Air 2004 report identifying all the counties nation-wide with air pollution monitors that monitored unhealthy levels of smog and fine particles over the 2000-2002-time period. The report found that counties that are home to nearly half the U.S. population, 136 million people, experienced multiple days of unhealthy ozone each year. The report further found that over 81 million Americans live in areas where they are exposed to unhealthful short-term levels of fine particle air pollution. In all, the report found that 441 counties, home to 55% of the U.S. population have monitored unhealthy levels of either ozone or particle pollution. Among those vulnerable to the effects of air pollution living in these counties include 29 million children, 10 million adults and children with asthma and nearly 17 million people with cardiovascular disease.[9] As impressive as these numbers may seem, it is undoubtedly an under estimate of the nature of the air pollution problem in this country because far from every county has a monitor for either smog or particle pollution.

We Need Greater Use of Clean Fuels in Areas with Unhealthy Levels of Smog and Particulate Air Pollution

As you know, on April 15 EPA designated all or part of 474 counties in non-attainment with the eight-hour National Ambient Air Quality Standard (NAAQS) for Ozone. Last week EPA proposed to designate approximately 233 counties in non-attainment for the fine particle or PM 2.5 NAAQS to take effect in December. These areas will be required to evaluate and select emissions reduction strategies that, in combination with the federal programs aimed at air pollution transported over long distances, will enable them to achieve the eight-hour standard and fine particle standards. The American Lung Association believes that many new non-attainment areas may want to adopt a clean fuels

[9] State of the Air: 2004, pp. 5-11 at www.lungusa.org

program using either RFG or a low volatility alternative or obtaining low sulfur diesel sooner than required by the regulations previously described. **We believe that should congress choose to change the law or otherwise influence gasoline policy, it should do so in a way that makes it easier for areas that exceed air pollution standards to adopt clean fuels programs and not "lock in" the use of dirtier conventional fuels.** We need clean fuels programs to be broadly adopted to obtain clean air and protect the public health as soon as possible.

There is No Evidence That Current Clean Fuels Programs Significantly Influence Current Gasoline Price Increases

As is customary when gasoline prices spike, some have recently suggested that the clean fuels programs, often referred to as "boutique fuels" are responsible. While it appears that clean gasoline programs in both California and the Chicago/Milwaukee area have contributed to temporary price spikes in the past, we believe there has been little evidence presented publicly demonstrating that clean fuels programs across the country are contributing in any significant way to today's high gasoline prices. Indeed, the evidence would suggest that systemic influences in gasoline production and marketing are the reason gasoline prices are as high as they are today. We believe this to be the case because: 1) gasoline prices have increased nation-wide, 2) conventional and clean gasoline prices are rising at the same rate, 3) in some areas, conventional gasoline is priced at or near the price of clean gasolines, 4) refiners are posting higher profits than they did a year ago when prices were lower.

Both conventional and clean fuels have risen in price $.30 cents a gallon or more from a year ago. This increase has occurred in virtually all parts of the country regardless of where their gasoline comes from or who makes it. More significantly, the increases in price for conventional gasoline and clean gasolines have pretty much been the same. Attached to the end of my testimony I have prepared two unscientific charts that illustrates my point. I believe a more comprehensive examination of the data will support my conclusions. I encourage the committee to ask DOE or EPA to conduct such an examination.

If the cost of producing clean gasoline were a major factor, the prices of these fuels would be rising at a faster rate. As my charts show, this does not appear to be happening. What is noteworthy is that in the West, the "rack" or wholesale cost of conventional gasoline in the states that border California, which has the most stringent fuel requirements in the country, has risen more than in California. In Las Vegas conventional gasoline is actually more expensive than the average rack price in California and Reno is almost the same. Portland also has the same expensive conventional gasoline. In New York the RFG sold in the New York City/Connecticut area will for the first time use the same low volatility blend-stock used in the Chicago/Milwaukee market because of new state MTBE bans. Yet the price of conventional gasoline in Albany has risen at the same rate and maintains the same price spread as a year ago. Note also that Atlanta, which has required the use of a low volatility; low sulfur "boutique" for several years has experienced a price increase no greater than Macon, which uses conventional

gasoline. Atlanta's fuel prices have consistently been below the national average price for conventional gasoline for reasons that remain a mystery.

The point is that the many other factors that impact gasoline price, lead by unsustainable growth in demand and the price of crude oil which is currently at or near $40 per barrel have historically driven price and do so today. Clean fuel requirements have an insignificant impact in comparison.

The Bush Administration Should Grant the California Oxygen Waiver Request

The one fuel requirement which operates as an exception to my testimony provided above is the federal oxygen requirement applicable to RFG in California As you know, California has been seeking a waver of the 2% oxygen requirement applicable to federal RFG sold in California since 1999. The state has provided impressive data showing that because California has banned MTBE and must use ethanol in every gallon of RFG sold in the state, emissions of soot and smog forming nitrogen oxides are higher compared to the use of California's Cleaner Burning Gasoline (CBG) without minimum oxygen levels met with ethanol. By all accounts, granting California's waiver request would increase the flexibility California refiners have to produce CBG and could lower gasoline prices modestly. The reduced need for ethanol in California, the largest in the nation, might even lower the cost of gasoline containing ethanol sold elsewhere across the country, such as in New York and Connecticut that have also banned MTBE. Yet EPA is not even giving California's request priority consideration even though it has been under court order since last October. **If President Bush would order Administrator Leavitt to grant California's oxygen waiver request tomorrow, it would result in improved air**

quality an immediate reduction in gasoline prices in California and perhaps other parts on the nation.

Finally, I must note that across the board, refiners are making more money this year than a year ago. The popular media has been filled with stories over the record high profits refiners earned in the first quarter of 2004. The cost of gasoline is high because demand continues to grow at an unsupportable pace. Refiners could make money by producing more gasoline, but selling it at a lower price. It is pretty obvious that they are not choosing this strategy. It is apparently easier and more profitable to maintain a larger gap between demand and supply and earn higher profits on a lower level of production.

RETAIL PRICE RISE COMPARISON OF CG & RFG (Cents per gallon)			
	5/6/03	**5/6/04**	**Change**
Chicago (RFG)	158.10	201.30	+43.20
Champaign (CG)	141.70	186.00	+44.30
St. Louis (RFG)	137.80	183.60	+45.80
Milwaukee (RFG)	156.40	196.40	+40.00
Madison (CG)	150.20	192.00	+41.80
Allentown (CG)	147.80	179.30	+31.50
Philadelphia (RFG)	160.30	182.60	+22.30
Atlanta (GG-low S, Low RVP)	133.10	173.70	+40.60
Macon (CG)	129.80	169.50	+39.70
Denver/Boulder (CG-low RVP)	144.70	182.30	+37.60
Colorado Springs (CG)	145.60	185.10	+39.50
Albany (CG)	162.60	186.10	+23.50
New York (RFG)	174.80	200.10	+25.30

GASOLINE RACK PRICES (Cents per gallon)			
	5/1/03	**4/29/04**	**Change**
Portland	97.22	152.05	+54.83
Reno	95.95	148.25	+52.30
Las Vegas	98.83	153.03	+54.20
California Average	100.73	151.27	+50.54

Mr. OSE. As you saw in the first panel, we will now go to questions of our witnesses.

Mr. Slaughter, you had a chart up—if you could put up the chart that had the gasoline pump tanks. Now, in that chart you have taxes at the top, distribution and marketing, refining and crude oil. And I believe it's your testimony that the crude oil is market dictated, the taxes are fixed by fiat, and the primary variables are the two middle portions, refining in one case, and distribution and marketing in the other. Is that correct?

Mr. SLAUGHTER. It is. There's variation, of course, in crude oil price.

Mr. OSE. But it's beyond our control.

Mr. SLAUGHTER. Yes; 40 percent is traditionally a low point for crude oil. It has been more, and the refining number at 31 is traditionally less than that. That 31 percent is a high point that's been reached only twice in the last 4 years.

Mr. OSE. OK. Within the refining portion and the distribution and marketing portion, there is a cost element and then there is a profit element. Can you break those out accordingly?

For instance, a refiner, of that 31 percent, how much would be cost that's inescapable, and how much would be profit to the bottom line of the refiner?

Mr. SLAUGHTER. It's difficult to break it out exactly. There are indications that the refining profit can be in the neighborhood of 2 cents per dollar of capital employed. Traditionally, the return on investment in the refining industry is about 5 percent, so the piece of that that is actual profitability is relatively small.

I'd be glad to get back to you with more definite information, but it would be difficult to be definite beyond that.

Mr. OSE. Would the same factors dominate the distribution and marketing side, too?

Mr. Ports, I mean, you're more on that than Mr. Slaughter.

Mr. PORTS. Yeah, absolutely. I mean, that's probably a pretty historically—those are pretty historic levels. While the refining industry has certainly done well lately, the marketing side has basically been in its typical rut, so to speak. It's a very difficult business.

Mr. OSE. Well, Mr. Slaughter just indicated that 2 cents of every dollar represents profit to the refiner. Does 2 cents of every dollar represent—I should say "margin to the refiner." Does 2 cents of every dollar represent the margin to the wholesalers and the like?

Mr. PORTS. No. It's very hard to—again it's hard to quantify that, and I'm not evading the answer because there are different areas of the country, different real estate costs in different areas of the country, so some folks do require, you know, a higher margin than other areas of the country. So, it is a big, big variable across the United States.

Mr. OSE. Is it possible to break it out by geographic area or by pad or by market?

Mr. PORTS. If we could get back to the committee with that information, that would be great.

Mr. OSE. All right. We'll send you a question in writing. My objective is to break down within that framework how much profit, how much cost is embedded in those percentages.

Now, Mr. Slaughter, you talked a little bit about the variability in the price of the crude. It seems to me that almost every day we get a new influence on that. We've dealt with Venezuela strife in terms of productivity or politically. We're dealing with the Iraq question and the availability in production that gets to the ports. This thing in Russia where YUKOS is now under severe strain for whatever reason; apparently there's an issue of liquidity in terms of their ability to meet their contracts. Is there going to be a substantial impact on our availability of crude?

Mr. SLAUGHTER. Well, when it comes to YUKOS, I mean, there has been a lot of discussion on that point since it was first raised yesterday in some of the media. There is some feeling among analysts that even should YUKOS experience liquidity problems or go into bankruptcy that their facilities would still operate. This is typically what happens in the United States. So YUKOS could continue.

But, there is definitely an uncertainty premium in crude these days because of the events in the Middle East, not just in the Middle East, but also concern about Venezuela, about Nigeria and other areas. And, that, you know, it is one of the costs that are inherent in being 60 percent dependent on crude oil imports.

Mr. OSE. Mr. Maddox testified, if I recall, that premium, that risk premium, may be as high as $10 a barrel.

Mr. SLAUGHTER. I've seen analysts' opinions that put it that high. Others put it in the neighborhood of $4 to $5.

Mr. OSE. Is that sort of like the minimum and maximum? Do those numbers constitute the minimum and maximum risk premiums?

Mr. SLAUGHTER. Well, only in the sense that they are the minimum and maximum figures that I've seen from analysts. But I have seen $10. There is no scientific determination.

Mr. OSE. There's no scientific consensus as to what the risk premium is?

Mr. SLAUGHTER. There is not, but a number of analysts have said it's on the order of as much as $10. Others are about half that.

Mr. SHAYS. I noticed in Nigeria that, I think, Mobil declared force majeure on their production facilities, and that the white collar workers for, I think, Shell, have notified Shell of a pending strike in 3 weeks' time.

Mr. SLAUGHTER. Well, I believe that's true. But there have been problems in Nigeria for some time. It was in the news about 3 weeks ago that things were cleared up there. They obviously have broken out again. So, as you pointed out earlier in your questioning—I mean, these things tend to come and go, and you know, a lot of areas that we are dependent on for crude supply have problems.

Mr. OSE. You also testified, if I recall correctly, that at some point recently, in the recent past, we had about 300-plus refineries producing or refining capacity of 18.5 million barrels a day.

Mr. SLAUGHTER. 1981.

Mr. OSE. OK. And then currently we have about 150 with refining capacity of 16.8 million barrels. So that's a decline of 1.7 million barrels a day of refining capacity from 18.5 to 16.8.

Mr. SLAUGHTER. Yes. Right.

Mr. OSE. And, that's since 1981.

Can you give us any indication of what demand has done since 1981 in terms of what was overall demand for refined product in 1918 versus overall demand for refined product in 2004?

Mr. SLAUGHTER. It has grown by 25 percent.

Mr. OSE. So, what was it in 1981?

Mr. SLAUGHTER. Well, it was on the order—it's 16 million barrels per day and change, and now it's 19 to 20 million barrels per day.

Mr. OSE. Just a second. Let me write that down.

So, that leaves us short somewhere between 2—no, 3 and 4 million barrels, 2 to 4 million barrels a day in refining capacity.

Now, I understand we had been importing refined products somewhere on the order of 1,020,000 barrels a day, I think is the number. But, now it's fallen to about 980,000.

Mr. SLAUGHTER. There's been a decline of about 7 percent this year, and there are various opinions as to why that has occurred.

Mr. OSE. Such as?

Mr. SLAUGHTER. Well, it could be that importers have been unwilling or unable to invest in some of the requirements necessary to meet the new gasoline sulfur specs. In some instances, it could be that foreign suppliers have been unable to deal with the situation on the East Coast, in New York and Connecticut, with the ethanol mandate that is now in place in RFG in those States because of the decision to ban MTBE.

Mr. OSE. It's the oxygenate mandate. You're not required to use ethanol. It's a de facto mandate?

Mr. SLAUGHTER. It's a de facto mandate. The only two really available are MTBE and ethanol. If you ban MTBE and you have to use RFG, you've got to go to ethanol; and that creates uncertainty for importers.

These are essentially opportunistic suppliers to the United States. And, you know, they may decide they may be unable or just unwilling to supply, they may have other markets where they won't have to make these investments, and that may be why the numbers are slightly down on imports this year.

Mr. OSE. All right.

The gentleman from Massachusetts.

Mr. TIERNEY. Thank you, Mr. Chairman. I want to read the panel some quotes from industry individuals and documents, and then I want to talk a little bit about some of the first quarter reports from some of the companies here.

Back in November 1995 there was an internal Chevron document that revealed concerns of a senior energy analyst at the American Petroleum Institute convention, it says, "If the U.S. petroleum industry does not reduce its refining capacity, it will never see any substantial increase in refining margins. A few months later an internal Texaco document warned that 'As observed over the last few years and as projected into the future, the most critical factor facing the refining industry on the West Coast is the surplus refining capacity and the surplus gasoline production capacity. The same situation exists for the entire U.S. refining industry.'" That was a document of March 7, 1996.

And, last, we have a Powerine Refinery document, the internal Mobil Corp. e-mail of February 6, 1996, that "We would all like to

see Powerine stay down. Full court press is warranted in this case."

I say that because it seems fairly obvious from the GAO's report and others that the business has made a decision to decrease the amount of refining capacity, and as a result, their margins have appreciably gone up. Refinery closure and tight supplies have increased refinery margins and padded the oil companies' bottom lines according to one investigative report done by Senator Wyden that you heard me refer to earlier.

A prime example is ExxonMobil, which announced all-time record earnings for 2003 of $21.5 billion. Those are not just the highest earnings ever by an oil company; they are almost the highest ever by any company. ChevronTexaco, ExxonMobil, BP, Shell, ConocoPhillips and Occidental Petroleum have now all reported record first quarter results for 2004. ChevronTexaco shows a percentage increase in their first quarter 2004 results as compared to last year's first quarter of 33 percent. ExxonMobil is up 14 percent, BP is up 17 percent, Shell is up 9 percent, ConocoPhillips up 27 percent, and Occidental is up 50 percent. Those are the overall corporate results. But, five of the six companies referred to increased margins from their refinery operations as the significant factor in their profit improvements.

ChevronTexaco in its quarterly report says U.S. refining marketing and transportation earnings of $276 million improved $2,006,000 from last year, a 300 percent increase. The primary reasons for the improvement were an increase in average refined product margins, higher sales volumes and lower operating expenses. In our downstream and chemical segments, increased demand for refined products strengthened industry margins and helped boost our earnings.

From ExxonMobil, "U.S. gasoline prices helped give the world's largest publicly traded oil producer its biggest first quarter return refining profit in 13 years." "ExxonMobil's refining profit rose 39 percent to $1 billion." From Shell, "industry refining margins were driven primarily by strength in gasoline, and European margins found support from arbitrage opportunities to the U.S. In the first quarter, refining margins averaged 19.5 percent for the U.S. Gulf Coast region and 40 percent on the West Coast region."

"Margins in the United States of America also may be impacted by supply versus demand balances and low storage levels." From ConocoPhillips, "higher refining margins and running at 95 percent of capacity were the primary reasons for the improvement in performance. The realized U.S. refining margin increased almost 31 percent from $5.58 a barrel to $7.30 a barrel. But if you look at the first quarter performance in refining and marketing, all of our earnings came essentially from the refining side of the business. And when you look at the refining side of the business worldwide, 87 percent of that came from domestic refining and 13 percent from international refining."

And, finally from BP, "the refining and marketing result increased 13 percent compared with a year ago, reflecting improved refining margins particularly in the U.S."

Is this not pretty compelling evidence that the industry has been making business decisions to reduce its refining capacity in order to increase its margins?

Mr. Slaughter.

Mr. SLAUGHTER. No, Mr. Tierney, I don't believe it is. As we pointed out in our testimony, it requires a great deal of capital to operate in our industry, and I would say that in the 20 years I've been involved with the industry, we've seen many more bad refining quarters than good.

What you're talking about in the first quarter of this year is the rarest of instances in which refining profits were high. It's a very cyclical industry.

Mr. TIERNEY. Could I just interrupt you 1 second? And let's go back to last year when ExxonMobil announced all-time record earnings of $21.5 billion. So that's at least a couple of years in a row they've been doing pretty well, right?

Mr. SLAUGHTER. Well, again, I don't know what refining is within that $21 billion, sir, but refining oscillates between the top and the bottom of the scale and more times in the bottom than the top.

Mr. TIERNEY. Well, I think if we watch a trend—and you correct me if I'm wrong, if you guys don't have evidence of this—but since the mid-90's, probably since the 1990's when these refineries were being shut down, the margin has improved substantially; and that lack of supply has had a lot to do with it.

Mr. SLAUGHTER. The supply/demand balance has been tighter since about 2000. But there have been bad quarters since 2000 as well. And, again, you are overlooking the cost of being in the business, and the amount of dollars that have to be put in the business take up most of that income from the refining sector that you're talking about, even though the numbers——

Mr. TIERNEY. These are profits we're talking about. These are profits, not gross numbers or anything like that, but profits that you're talking about in their quarterly reports. You know, a 300 percent increase in one aspect of it.

Mr. SLAUGHTER. A lot depends, sir, on what it's being compared to. If it's a low baseline it's being compared to, you'll come up with a large percentage.

Mr. TIERNEY. I'm not going to go back and forth. I think the numbers speak for themselves.

Let me just read into the record, if I can, the first quarter profit figures, as reported by the Wall Street Journal, or by the companies themselves, for the first quarter 2004: ExxonMobil, $5.4 billion; BP, $4.8 billion; Shell, $4.4 billion; ChevronTexaco, $2.6 billion; ConocoPhillips, $1.6 billion; Amerada Hess, $281 million; Unocal, $269 million; Marathon, $258 million; Valero, $48 million; Murphy, $98 million; Sunoco, $89 million; Premcor, $50 million; Citgo, $35 million. Overall, $20 billion in profits for the first quarter alone for the industry.

I think it's a pretty compelling case, Mr. Slaughter and others, and I also think it's pretty damning that this industry fails to reinvest in its own operations in terms of maintaining its pipelines, maintaining enough refineries to service consumers.

But, I note my time is up, and I'll yield to the chairman.

Mr. OSE. The gentleman from Ohio.

Mr. TIBERI. Thank you. Staying on the same line of questioning, Mr. Slaughter, you've heard it all. Some have argued that capacity has been shut down to improve your bottom line or refineries' bottom line. Others have argued that environmental regulations and industry economics have contributed to the number of refineries or the lack of reinvestment. Either way, I think everybody would agree that we need to do something in America to improve refining capacity.

In your opinion, what can we do, what can Congress do, to help improve refining capacity in America?

Mr. SLAUGHTER. Well, we believe, first of all, that the United States does need additional refining capacity; and we are very strong proponents of the need for additional supply. We believe that the New Source Review reforms are extremely important. They need to be sustained. They are currently before the courts. They will help the industry add additional capacity and install modern technology when it—as soon as it becomes available.

We also believe that there can be improvements made in permitting requirements. We can have some streamlined permitting—where you don't have this situation where you're required to make a fuel, but you've got to wait a year or more for permits—so you can go ahead and actually get the investment in the ground and the product out.

You should be able to build refineries in this country, and frankly, it's because of the NIMBY situation that you can't. There is almost unlimited opportunity for public comment in any proceeding or a series of proceedings that leads to a significant new refining venture, and it shouldn't be that way. People who are trying to build a refinery in an area that's growing very fast shouldn't have to wait 10 years and still have nothing to show for their efforts.

The other thing is, you can insist that people recognize the true cost of environmental regulation and try to balance environmental regulation and supply concerns so we come out with the right answer in both policy areas.

Mr. TIBERI. How much would we have to increase refining capacity to impact in a meaningful way—I asked the question earlier—the cost of fuel at the pump?

Mr. SLAUGHTER. That's a question I really can't answer. It would be inappropriate, frankly, for me to answer it. But let me tell that any increase in refining capacity would be helpful in that direction.

We certainly need to maintain the refining capacity that we have right now. And one of the ways we can do that is the suggestions that I just made to you for policy changes. Certainly, passage of the energy bill would be a good first step.

Mr. TIBERI. You made note in your comment, and I asked a question earlier about the cost of environmental regulations to the cost of the pump; and it was answered two different ways: one in written testimony, environmental regulations have had a minimal effect on gasoline prices; and the other answer was a cent or two.

What would be your thought on that?

Mr. SLAUGHTER. EPA traditionally underestimates those costs. They do them ex ante. They do them before the rulemaking takes place. They have every reason to try to minimize the cost estimates.

I've often said I don't understand—we believe these are very important programs. They have significant health benefits. Isn't it reasonable to believe that being so significant, they do also entail significant costs? It has been pointed out earlier that although, the cost of reformulated gasoline is only a few pennies, if you look at the marketplace according to EIA, the market differential now is 20 cents between reformulated gasoline and conventional gasoline. Part of that is the mandates now that we are seeing in some of these States. There are significant costs.

We are not asking to do away with the programs. We're not asking to change the programs. They are already on the books. But we are asking for future programs to be done with a greater ear toward supply.

Mr. TIBERI. Mr. Ports, you're on the front lines, you and your members at the gas pump. And you mentioned in your testimony about this proliferation of fuels and the impact it has. Can you give us some examples of what you see?

Mr. PORTS. Well, I think you're obviously very familiar with it. You talked about the Chicago situation, Milwaukee, you know, some of these—Atlanta.

You know, our real point is I think you need to move very, very carefully on this situation. There are certainly compelling arguments on both sides that we could hurt refining capacity when we are dealing with boutique fuels. But our point is, I think we can help the distribution system by dealing with boutique fuels. And in terms of how we refine it and what we make, I think that has to be done very, very carefully.

Mr. TIBERI. How does that impact you as a marketer?

Mr. PORTS. It impacts us as a marketer very dramatically. We market, as an example, in St. Louis, just outside of St. Louis also; and the last few years, that's been, you know, a hotbed of problems.

Now, it's been very smooth this year, but we have had numerous situations where product simply wasn't available, spec product to use in the St. Louis market. I mean, we had some times where product might have had to have been trucked 500 or 600 miles to bring it into that market.

Mr. TIBERI. What happens then?

Mr. PORTS. Obviously, the price goes up, I mean, dramatically.

Mr. TIBERI. Thank you.

Mr. OSE. I thank the gentleman.

All right. We have votes we estimate that are going to occur around 12:45. I recommend we go over another round if you would like, OK?

Mr. Lieberman—actually, I want to ask Mr. Early a question. It seems to me, there is this underlying theme that is as yet unstated—I'm going to take a stab at it—that there are significant barriers to entry for new refining capacity in this country. I mean, there is the capital necessary to produce the kind of income streams that Mr. Tierney read into the record here that must be significant; and we have had testimony today that the capital is driven in part by putting in place the processes by which the oil is refined from its crude state to its finished state.

To a certain degree, it would seem to me that we are making a choice between significant increases in refinery capacity and strict adherence to an environmental safeguard. And there are some who advocate more so one way or the other. And, I am curious whether or not you might recognize that same thing, that the—that there's a benefit to the industry in having high thresholds to entry, and that it keeps competitors out.

And, then there's a benefit to the environment in having high thresholds to entry because it enforces the environmental safeguards.

Do you share that view?

Mr. EARLY. Mr. Chairman, we're—we mostly focus on environmental requirements that protect people, and we're not—you know, we're not knowledgeable enough as to whether those requirements operate as an effective barrier to entry in the marketplace.

Personally, my instinct is, if you've got $40 million to invest, why would you want to go into an industry where—that's dominated by, like, five major refiners? I mean, this wouldn't seem to me to be the best place you could put your money. So, I mean, that would strike me as being a much more important factor as to whether you want to get into the oil refining business.

When people start talking about streamlining requirements for refiners, our concerns focus on, well, do those requirements, those streamlined requirements, still continue to protect people from the emissions from that refinery? That's when we get nervous. The Lung Association is strongly on record opposing the new-source review changes that this administration is seeking to do, because we think the result will be more air pollution, and we think that will harm the public health.

Mr. OSE. Mr. Lieberman, at the Institute, do you look at this barrier to entry question? And we had earlier testimony that there were Brazilian refiners or Venezuelan refiners or Curacao refiners or whoever, who had frankly had a product that was in the market that they are no longer shipping to the market because they could not comply with the sulfur issue. I think that was the testimony.

Is this an issue? Is there, in effect, an unstated benefit to the extent refiners, from an ever-rising environmental requirement?

Mr. LIEBERMAN. That could well be. Regulations do tend to create winners and losers among the affected industry groups. Some refiners supported some of these State-level boutique fuels, maybe in part because they thought it would stave off more difficult RFG requirements, but maybe in part because they thought they would have that market all to themselves; and so there were some incentives in creating some of these State-level boutique requirements.

So, yes, there's refiners that don't mind or maybe actually like these requirements because they feel that it eliminates at least some competition.

Now, with regard to foreign sources of oil, everybody knows that we get more than half, 60 percent of our oil—it's less known that we get about 10 percent of our gasoline or refined gasoline components from overseas, as well. And there are some problems with that, and we saw a little bit of that this year with the new low-sulfur rules. As we in the United States go further and further down the road of these specialized blends that are only used in spe-

cific markets in the United States in some cases, although the sulfur rule is used everywhere—but as we go further and further down the road of these specialized blends or tough requirements that apply to all fuels, it's unclear how many foreign refiners will make the investment to provide that fuel. So there's some question where we are going to be getting our refined products in the years ahead.

I believe EIA has estimated that we will be seeing 1.6 percent or so increases in gasoline demand in the United States, and given the constraints on domestic refiners and the constraints that I just mentioned on foreign refiners, there are some serious questions, looking ahead, whether we will have enough refinery capacity looking forward.

Mr. OSE. The gentleman from Massachusetts.

Mr. TIERNEY. Thank you, Mr. Chairman.

Mr. Blake, the letter that you referred to in your testimony that was sent out yesterday, some people would find it interesting that both the environmental and the health community were concerned about gasoline prices.

Would you just expand a little bit upon your comments made in the letter and your rationale behind it?

Mr. EARLY. The principal focus of the letter is the fact that all the organizations that signed it, I think, believe that the State of California is right in asserting that the oxygen requirements actually results in an increase in the amount of air pollution that is generated by vehicles using the fuel, as distinct from using the fuel without the oxygen requirement. And, that's really what drove the participation in signing the letter.

The fact that this is one of the few things that the Bush administration can do right now that would affect gasoline prices is something that obviously we wanted to point out as a way of trying to leverage a decision on which, quite frankly, we think the Bush administration is dragging their feet.

And, I'll go further and say, we believe they are doing so in order to avoid offending the ethanol industry. I mean, this is all about ethanol, and the reason——

Mr. TIERNEY. So, we can expect a decision sometime after November 2004?

Mr. EARLY. Exactly.

Mr. TIERNEY. OK.

According to the Environmental Protection Agency, oil refineries are a significant source of air pollution, and in the year 2000, almost half of the refineries were within 3 miles of a population center of at least 25,000 people.

From your perspective, from a public health perspective, will you tell us why it's so important to implement and enforce the Clean Air Act and other environmental protections on oil refineries?

Mr. EARLY. Well, the air pollution conditions around refineries typically are among the worst in the country. As I discussed in my response to the chairman's question, we're very concerned because there is, all too often, this convergence between high populations and oil refinery operations. So, it is very critical, particularly with respect to toxic air pollutants that contribute to cancer and brain

damage and other very debilitating diseases—we think it is very critical that the requirements be maintained or even strengthened.

Mr. TIERNEY. Now, if I'm not mistaken, the consumer protections or the environmental regulations were in place before 1990. About 1990, with the Clean Air Act, the refineries started to shut down before that act went into effect; and they continued to be shut down after the act went into effect, so that there would be some question about what the impact of the Clean Air Act itself was upon the need to close down actually was.

Mr. EARLY. Absolutely. There has been a long history of concentration in the industry, and it's very unclear as to the impact of the environmental requirements with respect to that trend.

Mr. TIERNEY. OK. Thank you.

Mr. Slaughter, Mr. Ports, whose responsibility is it to improve refining capacity in this country? I notice that both of you indicated that you think there's a problem with the refining capacity. But in that this is a private industry, don't you think that the burden falls on the industry itself to resolve that issue?

Mr. SLAUGHTER. Well, the burden, if I may—the burden, some of the burden does fall on the industry itself. Also, it's on policymakers to make sure that there are policies that encourage that investment capital be able to invest in this business to build new refineries and that there not be barriers to entry. It just seems strange that people aren't willing to admit that environmental requirements do cost money and can constitute a barrier to entry.

Mr. TIERNEY. Well, let's assume that, as mentioned before, these environmental regulations have been with us for some time now, all right?

Mr. SLAUGHTER. But, they've been made increasingly stringent all through the last decade, sir.

Mr. TIERNEY. All right. And, we have regulations that affect almost every industry. And, this is a public policy; people want to breathe clean air, and they want to live healthily.

Mr. SLAUGHTER. But, most people believe the refining industry to be one of the most heavily regulated industries in the United States.

Mr. TIERNEY. Well, we may be disagreed on that. But let's assume that it might, for a sense of that. It's still the industry that you're in.

Mr. SLAUGHTER. Yes, sir.

Mr. TIERNEY. There are many people in this Congress that just believe in this free market stuff, even though many of us who think we're in a mixed economy, that—there's many that swear to this free market stuff. So assuming that you're in your free market, you have a regulation that's in place, you have to deal with it.

You know, what other policy—I mean, you certainly don't advocate reducing the environmental protections. I think from our previous testimony from you that you did not advocate reducing environmental protections; am I right?

Mr. SLAUGHTER. That is correct. And then the industry, I would point out, invests, as I've shown, billions of dollars over the last 2 decades, as many as $50 billion put back into this business just to comply with environmental requirements, sir.

Mr. TIERNEY. So when will the industry start putting money back in to increase its refining capacity and improve its pipeline conditions and things of that nature?

Mr. SLAUGHTER. The industry makes huge investments every year in those matters. Even when refining capacity has not been increased, the facilities have been modernized. Many times investments, like the investments in lower-sulfur gasoline and diesel, result in modernization of facilities, but they may not result in more capacity. One of the reasons is that because a lot of the processes necessary to make these cleaner fuels actually reduce the yield. So you, in essence, have reduced the capacity of the plants because you're increasing the severity of the refining process to make cleaner fuels.

Mr. TIERNEY. But you talked earlier of the huge gap between the demand and the supply right now, the fact that you just don't have enough refining capacity to meet the demand for refined product, right?

Mr. SLAUGHTER. When the demand, particularly for gasoline, is high, as it has been this year and is particularly in the summer driving season, there is a very tight supply/demand balance, yes.

Mr. TIERNEY. OK. So I guess my question comes back to, what does the industry propose to do? Nothing? Until when?

Mr. SLAUGHTER. The industry—you know, given the regulatory climate and the investment requirements in this industry, we are very lucky we have many different kinds of companies that continue to be committed to and invest in the domestic refinery industry.

Mr. TIERNEY. That's your interpretation. You've already accepted the fact that you don't want to make the air any dirtier, and that you accept the Clean Air Act requirements and you're content to live within that.

So given your situation, what is the industry going to do about increasing the refining capacity?

Mr. SLAUGHTER. Well, as individual players in the industry decide that is a good allocation of their capital and basically decide that's what they want to do, and if they're able to do it with the permitting authorities and through the long NIMBY process that we have to go through to make changes in our facility, that will happen. But those will be individual decisions.

We have some of our members who are increasing capacity at their plants as we speak.

Mr. TIERNEY. The existing ones?

Mr. SLAUGHTER. At existing plants.

Mr. TIERNEY. Now, when's the last time that anybody filed for a permit to build a new refinery?

Mr. SLAUGHTER. Well, a group in Arizona has a permit, a live permit, that has been pending for 10 years now, and there are people in our industry who are interested in that facility. But the big question is whether or not they actually will be able to get through the process and build it, even though the area needs more product.

Mr. TIERNEY. That's one. How many others are out there?

Mr. SLAUGHTER. Well, there have been others over the years, but actually most capacity has been added at existing sites and so——

Mr. TIERNEY. So I can count on one hand probably the number of requests for permits for new refining facilities, right?

Mr. SLAUGHTER. Well, it doesn't—well, yes, you can because it doesn't take long to learn what's not doable under current statutes.

Mr. TIERNEY. Well, it doesn't take long to make a decision—to make a decision that you want to invest and move on either. You've accepted your environmental constraints. Then it seems to me you're just going to make a decision: You either want to invest and have more capacity or you don't, or you're going to find some excuse not to do it.

Mr. SLAUGHTER. Well, one of the things that's not appreciated about mergers and acquisitions, sir, is that many of the companies that have bought these facilities from others in mergers or acquisitions have invested hundreds of millions of dollars in the plants that perhaps the former owners would not have done. So there's an economic rationalization process through the industry that has let people spend capital efficiently, even within the confines of not being able to build new refineries.

A lot of people who are the new owners of some of these facilities have invested significant sums of money in it because they saw a different possibility there for business than the previous owner did. It's just part of the system.

Mr. TIERNEY. What do you say about the Shell Bakersfield situation? Do you think that fits your category?

Mr. SLAUGHTER. Well, you know, Shell probably is in the best position to know what the relative profitability of that facility has been. Now we've heard today that the FTC is going to look into that matter. It's a relatively small refinery, as you know, 70,000 barrels a day.

Mr. TIERNEY. But a smaller one of 20,000 was found to be profitable. So doesn't it make you just a little bit skeptical that all of a sudden this is being shut down?

Mr. SLAUGHTER. Well, as I said, the owner is in the best position to know. We have not evidently heard the last of what's going to happen with regard to that refinery.

I think this situation points out the intense scrutiny that everything this industry does is subject to. This hearing is part of it as well. And I think you see today that, you know, things receive a great deal of attention in our industry, and there are regulatory authorities who even debate what the most effective way is to assess some of the finer points of our industrial operations.

Mr. TIERNEY. I'll yield back. And we have some regulatory agencies that actually regulate, and we have some that stand by and watch. Thank you.

Mr. OSE. Gentleman from Ohio.

Mr. TIBERI. Thank you, Mr. Chairman.

Mr. Slaughter, kind of continuing on the line of questioning on the refinery business, if Mr. Tierney and I decide to become partners and start a refinery tomorrow or begin that process—and that would be a joy——

Mr. TIERNEY. For you maybe.

Mr. TIBERI [continuing]. How much time and money would be required to construct, let's say, an average-size refinery in America today?

Mr. SLAUGHTER. Well, you know, if we go back to the Arizona project, they're talking about building 150,000-barrel-a-day refinery. That's a little bigger than the average one in the United States today, which is about 110,000 barrels per day. The estimated cost of actually building that refinery, going through all the process and building it for 150,000 barrels a day, is $3 billion.

Mr. TIBERI. $3 billion?

Mr. SLAUGHTER. $3 billion, so—you know, there are large expenditures; and again——

Mr. TIBERI. I guess we won't be doing that.

Mr. SLAUGHTER. Again, looking at the relative economic——

Mr. TIERNEY. But you and I wouldn't have shut down the 100 or so that they've already shut down either, probably because we would have thought about that.

Mr. SLAUGHTER. The economics of actually building one, of the things you need to look at, is that it is so difficult to build refineries. Existing refineries—and the business is a tough business, a cyclical business. Refineries that have been sold have been sold roughly for 25 to 33 percent of book value.

One of our members has gone from 1 refinery to 15 refineries by acquisitions over the last several years. As stated, they never paid more than $0.38 on the dollar for the facility.

Mr. TIBERI. If we decided instead to build a refinery abroad, what would the cost be versus the cost here?

Mr. SLAUGHTER. It would depend on where you build it, Congressman.

Mr. TIBERI. The cheapest place to build one.

Mr. SLAUGHTER. Well, you could build one, you know, I guess, in parts of Latin America or the Caribbean for a fraction of that price. Of course, they have different air quality characteristics.

But, again, when you become dependent on foreign sources of supply, even for the manufactured product, you're exacerbating the problems we're seeing already in getting hold of crude supplies for the country.

Mr. TIBERI. But if you are a refiner and you're looking to expand, are the incentives today there to expand abroad and to build abroad, rather than here, because of the cost here?

Mr. SLAUGHTER. I think most refiners would prefer to build in the United States if there is demand here, because you're closer to your markets. But, you know, there are significant costs that they face if they try to build or even expand capacity in the United States that they don't face elsewhere. And as I pointed out before in the case of ChevronTexaco and the ethanol tank, I mean, even when you're trying to do things that you're mandated to do, it's difficult to get them done here.

So, you know, again I say, looking at all these situations with the difficulties in the investment requirements, we are fortunate that we have the large number of refiners we have.

If you look at the top 12 refiners in the United States of America today—also I would point out, 5 of them are independent refiners; they are not integrated refiners. There's a lot of diversity left in this industry. There are regional refiners that are smaller. We're fortunate to have them, and we need to keep their capacity here.

Mr. TIBERI. Moving forward, if something is not done to increase refining capacity in the United States, do you see an increase in this foreign refining capacity, in that market increasing? I think someone mentioned in the testimony, it's 10 percent today. Do you see that increasing?

Mr. SLAUGHTER. Well, practically, there's almost no way around it because, for instance, if you look at the EIA numbers, they believe that the lion's share of the increase in demand for U.S. products will be met by imports. They believe we can see small increases in domestic refining capacity, but not significant enough ones to actually meet most of the increasing requirements here. They see about a 1.5 to 2 percent growth per year in U.S. demand for petroleum products. But they see very small incremental increases in U.S. refining capacity. And they have said that they believe most new refinery construction will occur in the Middle East, in Latin America and in the Caribbean.

Mr. TIBERI. So if your business is so attractive, why is that 10 percent there in the first place and why is it going to increase?

Mr. SLAUGHTER. Well, the business is a cyclical industry and, you know, it is up and down. There are different kinds of players in the industry. The relative profitability of the refining sector is not that large.

We have a few times when the refining industry does relatively well. The return reverts to about 5 percent on investment capital. Business Week a month ago ran a chart of the profitability of various industries. Our industry was below the middle, so again, the fact that existing plants are being sold for only a fraction of their book value suggests that it's a tougher business.

Now, some people have successful business plans and do better than others in this business, but generally, it is a business with very high fixed costs and, you know, the profitability is episodic.

Mr. TIBERI. Thank you, Mr. Chairman.

Mr. OSE. Mr. Slaughter, I don't understand something. You comment about existing facilities being sold for 25 to 33 percent of book value. There's a certain disconnection in my mind, given the numbers that Mr. Tierney referred to relative to the profits. Why would you sell something at 25 to 33 percent of book value if it's profitmaking capability, at least in terms of the number of dollars—maybe not in terms of percent of return on assets, but if its profitmaking ability is as indicated from those numbers?

Mr. SLAUGHTER. Well, first of all, I'm not sure that all those numbers directly apply to refining profitability. And the fact of the matter is that, you know, there are more down periods than up periods when it comes to refining profitability.

Analysts who know the industry well realize that there is a lot more profit potential in the upstream portion of the industry, exploration and production, than there is in the heavy manufacturing part, which is refining.

Mr. OSE. Well, at $40 a barrel, I would agree.

Mr. SLAUGHTER. And again, that represents an input cost to refining. And refining is also a heavily regulated business. So different people, you know, in a free market, view the value of facilities in different ways. Obviously, sellers, you know, felt that they

may not have been able to meet the investment requirements, for instance.

Mr. OSE. Are you telling me and my colleagues up here that the industry is making a—for lack of a better word, an economically driven decision over time to keep refining capacity either static in the United States or allow it to decline in favor of moving overseas?

Mr. SLAUGHTER. No.

Mr. OSE. Well, earlier you only were able to cite one location where refining capacity—there's an application to build new refining capacity. And you also indicated that such expansions as occur are the little tweaking of refining capacity around the country at existing facilities.

Mr. SLAUGHTER. The imported product is normally not supplied by the same people that are the domestic refining companies. There may—as Mr. Caruso indicated earlier, there may be suppliers from Brazil, some of them can be European suppliers. In a situation like we have now, some may be from the Caribbean. But they're essentially different people.

I mean, we essentially have continued strong representation in the United States by the same companies that have been the major refiners in the United States for the last couple of decades. The largest refiners in the United States, the top five, are still—you know, they are ConocoPhillips, ExxonMobil, the Shell companies, BP and Valero. Valero is a newcomer to that group. But there has been a lot of stability with the exception of the fact of the mergers and acquisitions, which have combined some companies. But these companies have maintained very committed to U.S. refining capacity. ExxonMobil is the largest refiner in the world. But it is still the second largest refiner in the United States.

Mr. OSE. But I also note in your earlier testimony that the refining capacity of domestic industry has dropped from 18.5 million barrels a day to 16.8 million barrels a day. That's over 25 years. That's a clear indication to me that there—for whatever reason, whether it be regulatory or otherwise, that there is a consensus among the industry that whatever investments we're going to make in refining capacity—and this is just a matter of—I mean, this is just the way life is. Whatever this investment we are going to make in refining capacity—and the EIA concurs in this, because their projections are that the level of imported refined product is going to continue to increase—whatever this investment we are going to make in refining capacity, we are going to make offshore. I mean, I look at this information, this testimony, and it seems to me obvious that that's the case, for whatever reason, that capital is being moved offshore.

Mr. SLAUGHTER. Well, the companies that I have mentioned—I mean, basically all 149 companies have made significant capital commitments to the United States. And you know there may be companies that were formerly in the refining business, smaller ones that have gotten out of the refining business. There are a number of them that have merged or been acquired. But the financial commitment of the companies that are in business in the refining business in the United States is substantial.

Some of them have foreign refining as well; some don't. But as you know, most of the product, 90 percent of the product that we use in the United States is still produced here.

Mr. OSE. I'm not attacking. I'm just trying to look at the facts as they are lying in front of me, and figure out what's going on.

Mr. SLAUGHTER. Right. But I think you'll find, sir, that the real problem is what you mentioned earlier, which is the barriers that people face to adding——

Mr. OSE. The barriers are lower elsewhere?

Mr. SLAUGHTER. Well, it's true. I mean, that's one of the reasons why EIA says—for instance, says that you'll see a very significant increase in the percentage of imported products.

Mr. OSE. Because the barriers are lower elsewhere?

Mr. SLAUGHTER. Yes, but you know, again it was also said earlier that one of the reasons we bring this to your attention is that it is one of the—to the extent they are policy induced, it is something that we can do something about here.

Mr. OSE. I agree. That's my point, that we're making some conscious decisions the net results of which are that this new, added, incremental refining capacity is moving offshore.

Mr. SLAUGHTER. Yes, sir, that is true.

Mr. OSE. Now, I just have one other question I'd like to followup on, and that is, in the Clean Air Act amendment in 1990, there were a number of requirements that were laid into the statute that you had to comply with. And if I understand correctly, you have complied with them, that you support those and the like.

Mr. SLAUGHTER. Yes, a number of things like the sulfur reduction in gasoline and diesel. That's where these billions of dollars of investment have come from.

Mr. OSE. The oxygenate requirement?

Mr. SLAUGHTER. The oxygenation requirement.

Mr. OSE. OK.

Now, Mr. Ports, do you have any position or are you agnostic on these?

Mr. PORTS. I wouldn't say that we are agnostic on it. Rephrase for me what your question is.

Mr. OSE. Do you or do you not support the improvements that were embedded statutorily in the Clean Air Act of 1990?

Mr. PORTS. Yeah. I think all our organizations from any standpoint, both organizations, have long ago come to the conclusion that, you know, you've got to move forward. Clean air's going to happen, and, you know, you move forward with those regs.

Mr. OSE. OK.

Mr. Lieberman.

Mr. LIEBERMAN. I think 14 years out we have learned what has worked and what hasn't worked and there is some room for some streamlining. There is some room for jettisoning a few of the problematic provisions.

I think there's some consensus here on the 2 percent oxygen content requirement, and there may be a few other things that have out lived their usefulness. One thing might be the wintertime oxygenated fuels, which isn't that big a deal; but it is a fuel that was designed to fight carbon monoxide, which has really essentially disappeared as a problem.

So there are a few things that we could do to update those 1990 amendments. I'm not talking about a serious overhaul here, but there is some room for some streamlining here within the context of continuing cleaner air.

Mr. OSE. Mr. Early.

Mr. EARLY. Obviously, we support the amendments. If you'd permit me, Mr. Chairman, I wanted to address two points that Mr. Lieberman has raised.

One is the wintertime oxy fuel program. The Clean Air Act actually has a mechanism for eliminating this program, and in fact, many areas have abandoned the oxy fuel program so the Clean Air Act isn't really broken with respect to this program. In fact, I am informed by California officials that they will meet the carbon monoxide standard, which is the reason they are using oxy fuels and they will probably not be using oxy fuels next year after they get clearance from EPA. So that piece isn't really broken in the Clean Air Act.

Mr. Lieberman also said that we don't really need to adhere to the sulfur and gasoline requirements because air pollution will still go down as a result of the new emissions equipment in the Tier 2 program. I thought that's what you were implying. I just wanted to point out that if you talk to the automobile industry, they say that the sulfur and gasoline requirements that are being phased in beginning this year are absolutely critical for them meeting emission standards because the emissions control equipment on the new vehicles that will start being sold have to operate at 99 percent of efficiency; and if the sulfur levels are above an average of 30 parts per million, that won't happen, and if that doesn't happen, you'll lose the investment in that equipment and you'll also have dirtier air.

Mr. OSE. I think Mr. Lieberman's comment on page 10 and 11 was that whether or not the change from older fleets to newer fleets has a far greater impact on the quality of the air, as opposed to the reformulated gasoline formulas.

If you'd like to clarify, Mr. Lieberman.

Mr. LIEBERMAN. Yes, I would like to clarify. The low sulfur rules, that wasn't on my short list of things to change.

Mr. EARLY. Good.

Mr. LIEBERMAN. I never said it.

Mr. EARLY. I'm sorry.

Mr. LIEBERMAN. That's one where changing it would do probably more harm and good.

Even getting rid of rules involves transitional costs. And, here the motor vehicle manufacturers, both cars and trucks, both gasoline and diesel fuel, are counting on sulfur reductions in order to introduce new generations of emission controls technology. So, that's not one that ought to be on the chopping block.

Mr. OSE. I do want to followup though on one that I want to make sure I get you all on record on, if I may interrupt; and that is, do you support the rollback in California of the oxygenate mandate?

Mr. SLAUGHTER. Yes.

Mr. OSE. Do you, Mr. Ports?

Mr. PORTS. Yes, we have.

Mr. OSE. Mr. Lieberman, do you support the rollback of the oxygenate mandate in California?

Mr. LIEBERMAN. Yes. But I think, rather than a waiver, I'd like to see a national law that makes it——

Mr. OSE. Mr. Early, if I understand correctly from your letter, you and a number of organizations support the rollback of the oxygenate mandate in California.

Mr. EARLY. Yes, sir.

Mr. PORTS. Actually, Mr. Chairman, we would advocate the 2 percent oxygenate mandate nationwide on reformulated gasoline, and I think everybody's in agreement on that as certainly something that we could do away with.

Mr. LIEBERMAN. Better a law than just a mandate for a few States.

Mr. SLAUGHTER. And we support the New York waiver as well.

Mr. OSE. OK.

Mr. Tierney.

Mr. TIERNEY. Thank you. And, I suspect that you're in favor of it, too.

Mr. OSE. Since 1999.

Mr. TIERNEY. We're getting back on a little bit of the ground that we covered out in Nevada on these related hearings. We talked about the fact that in the early 1980's there was a public policy that provided support for small refineries, and those were terminated.

I would like each of you to give me as concise an answer as you can about whether or not you'd like to see those public policies revisited. And which specifically do you think would be helpful?

Mr. Slaughter.

Mr. SLAUGHTER. We have been in favor of incentives and programs that affect everyone the same in the industry, because we think it's important to benefit—to give economic benefits that are in the national interest to all refiners. So, you know, we believe the thing that makes the most sense is to get the New Source Review reform and take another look at and a better look at the energy impact of regulatory actions across the board for all refiners.

Mr. TIERNEY. So, those are the two things that you think were existing in the 1980's that you'd like to see revisited?

Mr. SLAUGHTER. No. I thought that your question, sir, was whether or not we would want a small refiner bias, and, you know, we think it's more effective to go with programs that the entire industry could use and improve.

Mr. TIERNEY. Given your clientele, I guess that would be a fair assumption that's where you would be. But, I was wondering if there were any particular policies that existed in the 1980's that you'd like to see revisited and resurrected again now.

Mr. SLAUGHTER. No. I think that, you know, the stringency on fuels and facilities really came in the 1990's, 2000's. And that's what's really affecting the industry, sir.

Mr. TIERNEY. All right. Well, do you think that there were public policies in the 1980's that were later terminated that had an effect on this? Or do you think the termination of those policies didn't affect it at all?

Mr. SLAUGHTER. The termination of some policies that were of particular benefit to smaller refiners did eliminate some of the refining population in the United States, yes.

Mr. TIERNEY. OK. But, that's not something you'd like to address because you want to give everybody a break somewhere?

Mr. SLAUGHTER. Well, if you're talking about something that's 20 years later and you can't undo what was done in the 1980's, at this point, it makes sense to do things that would increase output across the industry rather than just part of it. We obviously have small refiner members who might feel differently about that, but as an association——

Mr. PORTS. Yeah. I would say, generally speaking, our associations take the position that we would love to see incentives for small refineries. You know, more supply is good for us. It really is. It helps our business. It costs more in simple terms on a per-barrel basis to upgrade a small refinery, there's no question. I mean, I don't think anybody would dispute that.

Mr. TIERNEY. Mr. Lieberman.

Mr. LIEBERMAN. Well, one problem with the small refiners, particularly the older, smaller refineries, it's just not economical to make all the upgrades to meet the requirements. That's probably one of the reasons why you've seen some of the smaller refineries close down over the years. So, that really ties in to the high regulatory costs in upgrading plants to meet all the refinery regulations as well as the fuel regulations.

Mr. TIERNEY. Mr. Early, do you have an opinion? Do you want to weigh in?

Mr. EARLY. I don't think the Lung Association has a policy with respect to—if you're talking about economic incentives, obviously there isn't any question that some refiners chose not to make the investment to meet environmental requirements and shut down. And, we don't regret that decision. You know, if they can't meet the requirements, then they shouldn't operate.

Mr. TIERNEY. OK. Well, I guess, you know, just revisiting some of the information regarding the last hearing is that in the 1990's alone approximately 50 refineries were closed. Twenty refineries have been shut down since 1995. The number of operating refineries has been reduced by 13 percent since 1995. They're getting larger, but smaller in number and owned by fewer and fewer entities. Over the last 2 decades of the 20th century, the number of firms engaged in refining in the United States has declined by two-thirds.

The question we raised, and I think we might as well put on this record as well, last time is, the industry prepared for some sort of a tradeoff. If, in fact, you're asking for a public policy that has the taxpayers give some sort of incentive to increase capacity—and I'm saying "taxpayers" because we, I think, all agreed that we want the environmental regulations to stay in effect and to protect our health. So, is the industry prepared for some sort of a tradeoff if some incentive is given to increase the capacity?

What's the give-back to the taxpayer? Are you going to share profits or have an excess profit tax as a fall-back, or, you know, what is the taxpayer going to get if there's some sort of incentive given to the industry to increase refinery capacity?

Mr. SLAUGHTER. You know, our association is not asking for any incentives of those kinds. We are asking only for prudent policymaking in terms of being more sensitive to the impact on fuel supply of the environmental requirements.

Mr. TIERNEY. I'm sorry. You're losing me here. A minute ago you said that you were in favor of the environmental regulations, that you didn't want to have it adversely impact health. So, are you looking for adjustments in it, changes?

Mr. SLAUGHTER. The fact of the matter is that there is a balancing process that is a part of all this. I mean, you look at things like the New Source Review program; the actual truth is, there had been some slight increases in domestic refining capacity that stopped when the New Source Review program was reinterpreted in the late 1990's.

Mr. TIERNEY. But, it was interpreted.

Mr. SLAUGHTER. It was reinterpreted and it was used as an excuse to force additional investments on the industry.

Mr. TIERNEY. Sir, you are asking for a relaxation in environmental regulation?

Mr. SLAUGHTER. Not in the least. As a matter of fact, we are making significant investments, and as has been pointed out here, having made investments, it's in our interest for those programs to go forward. But, we can do a better job in the future.

Mr. TIERNEY. So, now we're back to where I thought we were before. You have no change in the environmental landscape, and you're still not doing anything. So, what is it you want?

Mr. SLAUGHTER. But, Congressman Tierney, I just don't realize why you can't understand that we want the policy to be implemented better with some more attention paid to the impact on the supply. That's all we're asking.

Mr. TIERNEY. Which is semantics for saying that you want to reduce the environmental protections.

Let's be serious with each other. That's what I don't understand. I don't understand why you won't be succinct in saying what it is you want. If you don't want the environmental regulations enforced to their fullest capacity to protect the health of people in this country and you want some sort of relaxation of that, then just say so, and we'll know where we are and we can move forward.

Mr. SLAUGHTER. There are few, if any, industries in the country, Congressman, that have spent, invested more money in cleaner air and other environmental improvements in the United States than the refining industry and the automobile industries. They're responsible for most of the improvements in air that have occurred since 1970.

Mr. TIERNEY. Well, they're also responsible for most of the damage in the air and most of the environmental pollution. So that's a good thing going.

We had a need to put environmental regulations on them. It was a decision that the people of this country made. You, a minute ago, told me that you were understanding of that and agreed with it. But, what you are now telling me, although you won't say it directly, is that what you want in order to build more refining capacity is a relaxation of those environmental regulations and nothing else.

Mr. SLAUGHTER. No, that is not what we want. We are simply asking for recognition that investment of those sums of money has an impact on business and that there may be a way, going forward, to balance our environmental requirements with a little more attention to the supply impact, often with no impact at all to the environment, Congressman. Some of these things improve the environment.

Mr. TIERNEY. Well, that would be certainly a matter of interpretation now, wouldn't it?

Mr. SLAUGHTER. Well, the New Source Review program reforms will improve the environment because they will allow the industry to make quicker use of new technologies.

Mr. TIERNEY. Well, now we know exactly what you're saying and that is with as little foundation and scientific backup as any statement that's been made today. But, that's for another day.

But, now I know exactly what you're after. You're not after tax breaks. You're not after anything else. You're after a relaxation of the environmental regulations, although you say in another breath that you're not.

Mr. SLAUGHTER. I can't agree with you, sir. I'm sorry.

Mr. TIERNEY. Well, it is what it is.

Mr. OSE. I want to thank this panel for their participation and for both Mr. Tierney and Mr. Tiberi's participation. I do appreciate your coming down here.

I have to say, I am struck by two things. First, that the interests of those who are in the business today, from an economic standpoint, are well served by higher barriers to entry, notwithstanding anything else; but the ability to keep competitors out benefits those who are able to deliver product today—that's just an economic reality. And, the current regulatory regime, while Mr. Slaughter may testify that his people are interested in increasing supply, which I accept, the current regulatory regime and capital returns serve to restrict the number of producers who give us product. That's the first thing.

And, the second is that everybody on this panel has now agreed with me, which position I took in 1999, that the environmental regulation on oxygenate additives needs to be rolled back as it relates to California.

And, I want to thank this panel for its testimony and participation. I certainly appreciate the company and input and the education I get from my friend from Massachusetts, and I look forward to our next hearing.

We are adjourned.

[Whereupon, at 1 p.m., the subcommittee was adjourned.]

[Additional information submitted for the hearing record follows:]

TOM DAVIS, VIRGINIA,
CHAIRMAN

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INDEPENDENT

July 13, 2004

VIA FACSIMILE
The Honorable Jeffrey R. Holmstead
Assistant Administrator for Air & Radiation
Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460

Dear Mr. Holmstead:

This letter follows up on the July 7, 2004 hearing of the Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, entitled "Driving Down the Cost of Filling Up." Please respond to the enclosed followup questions for the record.

Please hand-deliver the agency's response to the Subcommittee majority staff in B-377 and the minority staff in B-350A Rayburn House Office Building not later than July 28, 2004. If you have any questions about this request, please call Subcommittee Staff Director Barbara Kahlow on 226-3058.

Sincerely,

Doug Ose
Chairman
Subcommittee on Energy Policy, Natural
Resources and Regulatory Affairs

Enclosure

cc The Honorable Tom Davis
The Honorable John Tierney

Q1. As mentioned in your written testimony and during the hearing, the Environmental Protection Agency (EPA) has granted six refineries hardship waivers, which allow them additional time or flexibility to meet the new Tier 2 sulfur standards.

a. Where are these six refineries located?

b. What markets do they serve?

c. How long did EPA consider these waiver requests before granting them?

Q2. During the hearing, you indicated that determining the effect of an oxygen content waiver on air quality in California was very complex, and that the Clean Air Act Amendments of 1990 set very stringent guidelines for EPA to follow when considering such a waiver. You also indicated that an outside stakeholder group recently submitted additional data for EPA to consider.

a. What additional information or analysis does EPA need to complete before granting or denying California's request?

b. When do you expect to make a decision on this request?

c. Which stakeholder group submitted additional information? Please provide the Subcommittee a copy of the submission. Does this group stand to benefit financially if California's waiver request is delayed or denied?

819107

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 6 2004

OFFICE OF
AIR AND RADIATION

The Honorable Doug Ose
Chairman, Subcommittee on Energy Policy
Natural Resources and Regulatory Affairs
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Ose:

Enclosed, for insertion into the hearing record, are the U.S. Environmental Protection Agency's (EPA) responses to follow-up questions from the July 7, 2004 hearing entitled "Driving Down the Cost of Filling Up." I hope this information will be useful to you and Members of the Committee.

Thank you for providing EPA the opportunity to testify on this important issue.

Sincerely,

Jeffrey R. Holmstead
Assistant Administrator

Enclosure

Q1: As mentioned in your written testimony and during the hearing, the Environmental Protection Agency (EPA) has granted six refineries hardship waivers, which allow them additional time or flexibility to meet the new Tier 2 sulfur standards.

a. Where are these six refineries located?

b. What markets do they serve?

c. How long did EPA consider these waiver requests before granting them?

Response:

As part of our Tier 2 program, we incorporated specific regulations that allowed EPA to grant hardship waivers to refiners that can demonstrate it would be particularly difficult to comply with the fuel standards. Hardship petitions must be supported by significant information in support of the request, such as refinery configuration, inadequate financial resources, and a plan for meeting the applicable standards. EPA conducts a rigorous review process before making a decision on a hardship petition.

We have provided information answering all three questions above in the table below.

Refiner	**Market Area Defined in Application**	**Date of Approval**	**Time from Initial Application to EPA Approval**[1]
Relief Approved under Gasoline Sulfur Provisions			
NCRA (McPherson, KS)	Kansas, Nebraska, Minnesota, North Dakota, South Dakota, Missouri	May 2001	8 months
Wyoming Refining (New Castle, WY)	East Central Wyoming West Central South Dakota	May 2001	8 months
United Refining (Warren, PA)	Western New York (inc. Buffalo and Rochester), Northwest Pennsylvania (inc. Erie), and limited sales in the Pittsburgh area	Nov. 2001	13 months

[1]In many cases, the refiner applications were supplemented with additional information later in the process which EPA had to take into consideration in the review process.

Farmland Industries(Coffeyville, KS)	Kansas, Nebraska, Missouri, Oklahoma, Iowa, Minnesota, Wisconsin and South Dakota	June 2002	2 months (after Farmland reactivated dormant application)
Crown Central (Pasadena, TX) Crown Central (Tyler, TX)	East Coast (Colonial Pipeline) and East TX	Oct. 2003	3 months
Relief Approved under Diesel Sulfur Provisions[2]			
Giant Industries (Yorktown, VA)	Virginia and East Coast	March 2003	10 months
Coffeyville Resources Refining and Marketing (Coffeyville, KS)*	Kansas, Nebraska, Missouri, Oklahoma, Iowa, Minnesota, Wisconsin and South Dakota	March 2004	4 months

* Farmland Industries sold the Coffeyville refinery in March of 2004, at which point their hardship relief program ended. In a separate application process, Coffeyville Resources applied and was granted relief shortly after the sale was completed..

Q2: During the hearing, you indicated that determining the effect of an oxygen content waiver on air quality in California was very complex, and that the Clean Air Act Amendments of 1990 set very stringent guidelines for EPA to follow when considering such a waiver. You also indicated that an outside stakeholder group recently submitted additional data for EPA to consider.

a. What additional information or analysis does EPA need to complete before granting or denying California's request?

Response:

Commingling and permeation analyses:

As you are aware, EPA's June, 2001 decision to deny California's request for an oxygen content waiver was based on the conclusion that the directional effect of a waiver on VOC emissions was uncertain. In its February 2, 2004 submission, California provided additional information and analysis relating to commingling and permeation VOC emissions. This information addresses:

- The degree to which a waiver will result in increased emissions of VOC due to

[2] Although these hardship waivers were granted under the authority of the highway diesel fuel sulfur program, they also included relief from the gasoline sulfur standards.

commingling of gasoline with ethanol and gasoline without ethanol

- VOC permeation increases from nonroad equipment and gasoline cans that result from an increased use of ethanol in gasoline

The February 2, 2004 submission included several documents relevant to California's revised commingling and permeation analyses. To support the revised commingling estimates, California included a California Air Resources Board (CARB) Commingling Study that provided recent data on California consumer fueling habits and direct measurements of Reid Vapor Pressure (RVP) increases in consumers' vehicle fuel tanks. The report also contained estimates using a simulation model. California provided two technical reports relevant to permeation emissions. Both of these reports contained results from test programs where ethanol and non-ethanol gasolines were used. We are evaluating the assumptions made in California's more recent commingling analysis to determine if the model they used is a reasonable interpretation of California consumer habits associated with commingling. Similarly, we are evaluating California's study of permeation emissions from containers to ensure that it is adequately designed to reasonably estimate increased permeation emissions from containers with ethanol gasoline.

Particulate Matter (PM) Analysis

The February 2, 2004 submission from California EPA contained an analysis which examined the contribution of ammonium nitrate to PM10 and PM-2.5 in California, and in turn, the contribution of NOx emissions to ammonium nitrate and ultimately to PM concentrations. The analysis relied upon monitored PM10 and PM2.5 concentrations at stations in the San Joaquin Valley (SJV) and the South Coast (SC), and also used chemical mass balance (CMB) modeling performed in conjunction with the SJV and SC State Implementation Plans (SIPs) for PM10. California's analysis indicates that the higher NOx emissions associated with oxygenated RFG in California are likely to contribute to higher PM10 and PM2.5 concentrations in SJV and SC such that a waiver of the oxygen content requirement would be expected to lead to reduced PM concentrations.

We are evaluating the modeling approach that California used in establishing a relationship between NOx emissions and PM10 and PM2.5 formation. In addition, we have received comments from a stakeholder group raising technical issues with California's PM modeling. The Renewable Fuels Association (RFA) in a May 24, 2004 letter to EPA Administrator Leavitt, provided extensive technical comments on California's February 2, 2004 submission. Specifically, RFA claims that the model California chose to use for PM effects "misrepresents the real world non-linear impacts on PM nitrate from controlling NOx emissions."

RFA also argues that controlling ammonia would have more effect on PM formation than control of NOx emissions and cite a study showing that only five of 16 sites in California show similar trends with respect to NOx and PM. RFA states that the study shows that the absence of nitrate reductions on weekend emission levels in response to significantly lower NOx emission strongly suggests that the formation of PM is related to pollutants other than NOx.

We are therefore investigating RFA's arguments in conjunction with our evaluation of

California's information.

b. When do you expect to make a decision on this request?

Response:

I appreciate your desire for a decision on this request. We will respond as quickly as we can.

c. Which stakeholder group submitted additional information? Please provide the Subcommittee a copy of the submission. Does this group stand to benefit financially if California's waiver request is delayed or denied?

Response:

As mentioned above, the additional information was submitted in the form of comments by the Renewable Fuels Association (RFA) in a May 24, 2004 letter to EPA Administrator Leavitt. A copy of their submission is attached.

The potential financial impact of California's waiver request on a stakeholder is not part of our analysis.

TOM DAVIS, VIRGINIA,
CHAIRMAN

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ILEANA ROS-LEHTINEN, FLORIDA
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Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM

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BERNARD SANDERS, VERMONT,
INDEPENDENT

July 13, 2004

VIA FACSIMILE
Mr. William E. Kovacic
General Counsel
Federal Trade Commission
600 Pennsylvania Ave., N.W.
Washington, DC 20580

Dear Mr. Kovacic:

This letter follows up on the July 7, 2004 hearing of the Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, entitled "Driving Down the Cost of Filling Up." Please respond to the enclosed followup questions for the record.

Please hand-deliver the agency's response to the Subcommittee majority staff in B-377 and the minority staff in B-350A Rayburn House Office Building not later than July 28, 2004. If you have any questions about this request, please call Subcommittee Staff Director Barbara Kahlow on 226-3058.

Sincerely,

Doug Ose
Chairman
Subcommittee on Energy Policy, Natural
Resources and Regulatory Affairs

Enclosure

cc The Honorable Tom Davis
The Honorable John Tierney

Q1. As discussed during the hearing, the Government Accountability Office (GAO)'s recent report on petroleum mergers only investigated mergers up until 2000. Please provide a complete listing of all mergers that the Federal Trade Commission (FTC) has investigated since 2000 and the actions that the FTC has taken to prevent anti-competitive practices in the wake of these mergers.

Q2. At the hearing, both GAO and the FTC agreed to work more closely with one another to resolve their differences over GAO's recent report.

a. Have GAO and FTC set a date and time for the joint conference that was proposed?

b. If GAO releases its petroleum industry data, will FTC attempt to authenticate GAO's results?

TOM DAVIS, VIRGINIA,
CHAIRMAN

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BERNARD SANDERS, VERMONT,
INDEPENDENT

July 16, 2004

VIA FACSIMILE
Mr. William E. Kovacic
General Counsel
Federal Trade Commission
600 Pennsylvania Ave., N.W.
Washington, DC 20580

Dear Mr. Kovacic:

This letter follows up on the July 7, 2004 hearing of the Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, entitled "Driving Down the Cost of Filling Up." In addition to the responses to the followup questions posed in my July 13th letter, please provide responses to the attached questions from Ranking Member John Tierney.

Please hand-deliver the agency's response to the Subcommittee majority staff in B-377 and the minority staff in B-350A Rayburn House Office Building not later than August 2, 2004. If you have any questions about this request, please call Subcommittee Staff Director Barbara Kahlow on 226-3058.

Sincerely,

Doug Ose
Chairman
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs

cc The Honorable Tom Davis
The Honorable John Tierney

Enclosure

Questions for the Record
Hearing Held on July 7, 2004
"Driving Down the Cost of Filling Up"
For William Kovacic, General Counsel, Federal Trade Commission
From Ranking Member John F. Tierney

1. You indicated at the hearing that the Federal Trade Commission (FTC) has launched an investigation into Shell's plans to close its refinery in Bakersfield, California. Has FTC actually issued any subpoenas as a part of this investigation?

2. The *Los Angeles Times* reported on July 8, 2004, that Shell has reduced production at the Bakersfield refinery. Is FTC currently investigating or will FTC investigate this reported reduction in production?

3. Is FTC investigating or will it investigate exactly when Shell plans to shut down the Bakersfield refinery? Allegations have been made that Shell may be planning routine maintenance prior to the projected closure of the refinery. Is FTC investigating whether Shell is planning reduced production or an outage of the refinery for routine maintenance? If any such outages are planned, what is the rationale?

4. Will FTC be able to complete its investigation prior to Shell's planned shutdown of the Bakersfield refinery?

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

William E. Kovacic
General Counsel
~
Direct Dial
(202) 326-3661

July 27, 2004

The Honorable Doug Ose
Chairman
Subcommittee on Energy Policy, Natural Resources
and Regulatory Affairs
Committee on Government Reform
United States House of Representatives
2157 Rayburn House Office Building
Washington, DC 20580

Dear Chairman Ose:

This letter responds to your request dated July 13, 2004, enclosing follow-up questions related to your Subcommittee's hearing on July 7, 2004, entitled "Driving Down the Cost of Filling Up." For your convenience, I am enclosing the text of your questions followed by my responses.

Q1. As discussed during the hearing, the Government Accountability Office (GAO)'s recent report on petroleum mergers only investigated mergers up until 2000. Please provide a complete listing of all mergers that the Federal Trade Commission (FTC) has investigated since 2000 and the actions that the FTC has taken to prevent anti-competitive practices in the wake of these mergers.

The enclosed chart describes the Commission's investigations into petroleum mergers since 2000. The right-hand column in the chart describes what actions were taken, if any. During the time period in question, Commission staff investigated 32 matters. In five instances, the parties to the transactions abandoned the proposed merger following Commission investigation. In four mergers, involving Chevron/Texaco, Valero/UDS, Phillips/Conoco, and Shell/Pennzoil, the Commission required significant divestitures before allowing the mergers to proceed. For details on these four matters, please see the attached press releases and accompanying documents.

Q22. At the hearing, both GAO and the FTC agreed to work more closely with one another to resolve their differences over GAO's recent report.

a. Have GAO and FTC set a date and time for the joint conference that was proposed?

FTC staff are working on plans for a public conference related to the GAO report, but no date and time have been established yet. We will be sure to let you know when a date and time have been selected.

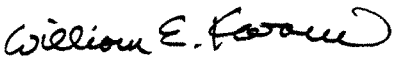
b. If GAO releases its petroleum industry data, will FTC attempt to authenticate GAO's results?

If GAO were to release its petroleum industry data, the FTC certainly would attempt to authenticate GAO's results. That would be an important part of a full and open review of the GAO data and results.

On July 16, 2004, you also forwarded a series of follow-up questions from Ranking Member John F. Tierney regarding an investigation of Shell Oil Company's planned closure of its Bakersfield, California refinery. While it is true that the Commission has authorized the disclosure of the existence of an FTC investigation into the planned refinery closure, any details related to such an investigation are non-public and cannot be disclosed. Disclosure of any such details could harm the company and could interfere with the conduct of the investigation and the successful resolution of the investigation. Consequently, I cannot answer the specific questions that Ranking Member Tierney has asked. If the Commission ultimately were to find reason to believe that a law enforcement action would be warranted in this matter, such a decision would be fully explained in the documents authorizing such an action. If, on the other hand, the Commission elected to close the investigation with no action, I would certainly urge the Commission to follow its recent practice of issuing a closing statement providing reasons for the closure so that all interested parties would be informed.

I hope that the information that I have provided to you in this response will be useful. If you have any further questions, please feel free to call Anna Davis, Director of Congressional Relations, at (202) 326-2195.

Very truly yours,



William E. Kovacic
General Counsel

Enclosures

Merger Investigations from 2000 to Present in the Petroleum Industry

Request from Doug Ose, Chairman of the Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, House Committee on Government Reform, Follow-up Materials to Hearing of July 7, 2004 on Driving Down the Cost of Filling UP

Fiscal Year	File Number	Name of Investigation	Initial Phase		Full Phase		Enforcement or Other Notes
			Opened	Closed	Opened	Closed	
2000	0010007	Equilon Enterprises LLC	10/18/99	4/17/00			Frontier Oil Corp. and Royal Dutch Petroleum Company.
Horizontal Mergers							
2000	0010140	Southern California Edison Co and Equilon Enterprises LLC	3/20/00	11/24/00			Possible acquisition by Equilon of petroleum terminalling assets in the Los Angeles area from Southern California Edison Co. ***Conclusion***: Transaction abandoned.
Horizontal Mergers							
2000	0010013	GATX Corp	10/22/99	3/24/00	3/24/00	8/14/00	Planned sale of GATX terminalling operations in Carson, CA, Linnton, OR, and potentially other GATX terminalling assets on the West Coast. Staff received complaints that GATX is selling some or all of its terminalling assets on the West Coast and that Equilon, Kinder Morgan and/or other entities may be acquiring some or all of GATX's terminalling assets on the West Coast. ***Conclusion:*** transaction abandoned.
Horizontal Mergers							

Fiscal Year	File Number	Name of Investigation	Initial Phase		Full Phase		Enforcement or Other Notes
			Opened	Closed	Opened	Closed	
2000	0010166	Koch Industries, Inc.	5/26/00	5/31/00	5/31/00	7/13/00	
Horizontal Mergers							
2000	0010188	Ultramar Diamond/Tosco Corp.	7/12/00	8/22/00			***Conclusion:*** no horizontal overlap.
Horizontal Mergers							
2000	0010190	Tosco Corporation/BP Amoco plc	7/13/00	8/16/00			***Conclusion:*** no significant horizontal overlap in unconcentrated Gulf Coast market.
Horizontal Mergers							
2000	0010211	Colonial Pipe Line and BP Amoco p.l.c.	8/10/00	8/31/00			Acquisition of refined product pipeline.
Horizontal Mergers							
2001	0110055	Kinder Morgan and GATX Corp.	12/12/00	1/12/01	1/12/01	6/22/01	Proposed acquisition of refined products pipeline. ***Conclusion:*** no anticompetitive effects.
Horizontal Mergers							
2001	0110011	Chevron Corp./Texaco, Inc.	10/17/00	12/15/00	12/15/00	3/1/02	***Conclusion:*** Consent order C4023 - 9/7/01. Divestiture of all of Texaco's interests in 2 distributing and marketing joint ventures (Equilon and Motiva) and other assets.
Horizontal Mergers							

Fiscal Year	File Number	Name of Investigation	Initial Phase		Full Phase		Enforcement or Other Notes
			Opened	Closed	Opened	Closed	
2001	0110074	Phillips Petroleum Company and The Coastal Corporation	1/3/01	1/16/01	1/16/01	4/13/01	***Conclusion:*** no significant horizontal overlap.
Horizontal Mergers							
2001	0110095	Phillips Petroleum Co./Tosco Corp.	2/12/01	4/4/01	4/4/01	9/14/01	***Conclusion:*** little horizontal overlap and small market shares in relevant market.
Horizontal Mergers							
2001	0110138	Valero Energy Corp./El Paso	5/7/01	6/1/01			Acquisition of Coastal's Corpus Christi refinery. ***Conclusion:*** no significant horizontal overlap.
Horizontal Mergers							
2001	0110141	Valero Energy Corp./UDS	5/10/01	6/20/01	6/20/01	3/1/02	Valero Energy Corp. acquisition of Ultramar Diamond Shamrock Corp. ***Conclusion***: Consent order C4031 - 12/18/01. Divestiture of a refinery, supply contracts, and gasoline stations in CA.
Horizontal Mergers							
2001	0110148	U.S. Restaurant Properties	5/15/01	7/31/01	7/31/01	8/18/03	Sale of gasoline stations. ***Conclusion:*** transaction abandoned.
Horizontal Mergers							

Fiscal Year	File Number	Name of Investigation	Initial Phase		Full Phase		Enforcement or Other Notes
			Opened	Closed	Opened	Closed	
2002	0210040	Phillips Petroleum Co./Conoco Inc.	11/28/01	1/14/02	1/14/02	6/24/03	Consolidation. ***Conclusion:*** Consent order C4058 - 8/30/02. Divestiture of refineries, a terminal, and marketing assets in western U.S., and other relief.
Horizontal Mergers							
2002	0210120	Valero Energy Corp./El Paso Corp.	3/25/02	5/2/02			Acquisition of Coastal's Eagle Point refinery. ***Conclusion:*** transaction abandoned. See Sunoco/Coastal Eagle Point - 0310139.
Horizontal Mergers							
2002	0210123	Shell Oil Company/Pennzoil - Quaker State Company	3/28/02	5/14/02	5/14/02	12/12/02	Concerns: Refining and marketing of paraffin and base oil in U.S. and Canada. ***Conclusion:*** Consent order C4059 - 9/27/02. Divestiture of Pennzoil interest in lube oil joint venture; Pennzoil sourcing of lube oil from third party lube oil refiner frozen at current level.
Horizontal Mergers							
2002	0210219	Williams Energy Partners LP	8/29/02	9/26/02	9/26/02	1/13/03	Proposed acquisition of certain assets of Tesoro Refining and Marketing Company from Tesoro Petroleum Corporation. ***Conclusion:*** transaction abandoned after staff expressed competitive concerns.
Horizontal Mergers							

Fiscal Year	File Number	Name of Investigation	Initial Phase		Full Phase		Enforcement or Other Notes
			Opened	Closed	Opened	Closed	
2003	0310009	Buckeye Partners, L.P. and Colonial Pipeline Co.	10/17/02	11/5/02			Proposed acquisition of refined petroleum pipeline.
Horizontal Mergers							
2003	0310011	BP p.l.c. and Williams Companies, Inc.	10/22/02	1/13/03			
Horizontal Mergers							
2003	0310029	Pilot Corp./Williams Cos. Inc.	11/22/02	12/16/02	12/16/02	2/4/03	Truck stop merger. ***Conclusion:*** little horizontal overlap; broad markets with many competitors.
Horizontal Mergers							
2003	0310034	Tesoro Petroleum Corp and Kaneb Pipe Line Partners, LP	12/3/02	12/27/02			Proposed acquisition of refined products pipeline.
Horizontal Mergers							
2003	0310048	TransMontaigne Inc. and Delta Terminal Inc.	12/17/02	6/24/02			Proposed purchase of Florida petroleum terminal and barge operation.
Horizontal Mergers							
2003	0310079	TransMontaigne Inc. and El Paso Corporation	2/14/03	2/20/03			
Horizontal Mergers							

Fiscal Year	File Number	Name of Investigation	Initial Phase		Full Phase		Enforcement or Other Notes
			Opened	Closed	Opened	Closed	
2003	0310139	Sunoco/Coastal Eagle Point	5/6/03	6/11/03	6/11/03	12/29/03	Proposed acquisition of certain assets of Coastal from El Paso Corporation. ***Conclusion:*** competition from other refineries would defeat any attempt to increase prices. In addition, transaction showed evidence of substantial efficiencies.
Horizontal Mergers							
2003	0310176	Cumberland Farms, Inc./ConocoPhillips Corp.	6/13/03	7/1/03	7/1/03	8/12/03	Retail assets divested by Exxon in *Exxon/Mobil* sold to convenience store chain. ***Conclusion:*** no significant increase in concentration.
Horizontal Mergers							
2003	0310186	Petroleum Products Corp.	6/30/03	1/8/04			Exxon Mobil Corp. and Shell Oil Company.
Horizontal Mergers							
2003	0310253	The Pantry, Inc./Koninklijke	9/25/03	6/8/04			Gasoline stations with convenience stores. ***Conclusion:*** no significant increase in concentration.
Horizontal Mergers							

Fiscal Year	File Number	Name of Investigation	Initial Phase		Full Phase		Enforcement or Other Notes
			Opened	Closed	Opened	Closed	
2004	0410004	Alimentation Couche-Tard Inc.	10/10/03	6/8/04			Gasoline stations with convenience stores. ***Conclusion:*** no significant increase in concentration.
Horizontal Mergers							
2004	0410061	Sunoco Inc./ConocoPhillips	2/2/04	5/18/04			Retail marketing in the Mid-Atlantic area. ***Conclusion:*** no significant horizontal overlap and no effect on prices.
Horizontal Mergers							
2004	0410062	Getty Petroleum Marketing Inc./ConocoPhillips/Lukoil Oil Company	2/2/04	5/18/04			Retail marketing in the Mid-Atlantic area. ***Conclusion:*** no significant horizontal overlap and no effect on prices.
Horizontal Mergers							
2004	0410064	Enbridge Energy Partners, L.P.	2/2/04	2/24/04			Proposed acquisition of refined products pipeline and storage terminal. ***Conclusion:*** no significant increase in concentration.
Horizontal Mergers							

Notes to Matters:

Consent Date - date proposed consent agreement accepted for public comment.

SIC Codes Included
1311 - Crude Petroleum and Natural Gas
2911 - Petroleum Refining
2992 - Lubricating Oils and Greases
4612 - Crude Petroleum Pipe Lines
4613 - Refined Petroleum Pipe Lines
5171 - Petroleum Bulk Stations & Terminals
5172 - Petroleum Products, Not Elsewhere Classified
5541 - Gasoline Service Stations

NAIC Codes Included
324110 - Petroleum Refineries
422710 - Oil, Petroleum, Bulk Stations and Terminals
422720 - Petroleum and Petroleum Products Wholesalers (except Bulk Station and Terminals)
447190 - Other Gasoline Stations

Chart excludes investigations that related only to non-petroleum products (such as natural gas) or downstream marketing of non-gasoline petroleum products (such as motor oil).

Federal Trade Commission
600 Pennsylvania Avenue, NW
Washington, DC 20580

For Release: September 7, 2001

FTC Consent Agreement Allows the Merger of Chevron Corp. and Texaco Inc., Preserves Market Competition

Order Would Require Texaco to Exit Existing Equilon and Motiva Joint Ventures

Through a proposed consent agreement reached with the Federal Trade Commission and announced today, the $45 billion merger of Chevron Corp. (Chevron) and Texaco Inc. (Texaco), two of the world's largest integrated oil companies, would be allowed to proceed, with significant divestitures required to remedy the likely anticompetitive impacts of the transaction as proposed.

Under the terms of the proposed order, the combined Chevron/Texaco would be required to divest all of Texaco's interests in two joint ventures, Equilon Enterprises, LLC (Equilon), which is currently owned by Texaco and Shell Oil Company (Shell), and Motiva Enterprises, LLC (Motiva), which is currently owned by Shell, Texaco, and Saudi Refining, Inc. (SRI). Outside "the Alliance" defined by these two joint ventures, Texaco would be required to divest assets including its one-third interest in the Discovery natural gas pipeline system in the Gulf of Mexico; its interest in the Enterprise fractionating (raw mix separation) plant in Mont Belvieu, Texas; and its general aviation businesses in 14 states. The proposed agreement also contains a Hold Separate Order that would require the companies to maintain certain assets as viable and competitive businesses pending their divestiture.

"The terms of this order are consistent with the analyses and approaches taken by the Commission in prior major petroleum industry mergers," said FTC Bureau of Competition Deputy Director Sean Royall. "In markets where competitive concerns were identified, those problems have been addressed, with the result being a continuation of the competitive balance that existed in the pre-merger environment." He specifically thanked the attorneys general of Alaska, Arizona, California, Florida, Hawaii, Idaho, Nevada, New Mexico, Oregon, Texas, Utah, and Washington for their participation and assistance in the investigation. Bureau of Competition Director, Joseph Simons, was recused from participating in the matter.

Parties to the Proposed Merger

Chevron, headquartered in San Francisco, California, is directly or through affiliates engaged in the exploration for, and production of, oil and natural gas; the pipeline transportation of crude oil, natural gas, and natural gas liquids; the refining of crude oil into refined petroleum products, including gasoline, aviation fuel, and other light petroleum products; the transportation, terminaling, and marketing of gasoline and aviation fuel; and other related businesses. In fiscal year 1999, Chevron had worldwide revenues of $35.4 billion and net income of $2.1 billion.

Related Documents:

Docket No. C-4023
File No. 011 0011
In the Matter of Chevron Corporation, and Texaco Inc.

Agreement Containing Consent Orders,

Including the Decision and Order

Order to Hold Separate and Maintain Assets

Complaint

Analysis of Proposed Consent Order To Aid Public Comment

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Texaco, headquartered in White Plains, New York, conducts many of the same activities as Chevron, including the exploration for, and production of, oil and natural gas; the pipeline transportation of natural gas and natural gas liquids; the pipeline transportation of crude oil; refining of crude oil into refined petroleum products, including gasoline, aviation fuel, and other light petroleum products; the transportation, terminaling, and marketing of gasoline and aviation fuel; and other related businesses. In fiscal year 1999, Texaco had worldwide revenues of $35.7 billion and net income of $1.2 billion.

Through an agreement and merger plan dated October 14, 2000, Chevron agreed to acquire all of the outstanding common stock of Texaco in exchange for stock in Chevron. As a result of the merger, Chevron's shareholders will hold approximately 61 percent, and Texaco's shareholders will hold approximately 39 percent, of the new combined company.

Joint Ventures Comprising the Alliance

In 1998, Texaco contributed its U.S. petroleum refining, marketing, and transportation operations to the Equilon and Motiva joint ventures, and retained an interest in these ventures and the overall Alliance. Equilon consists of Texaco's and Shell's western and midwestern U.S. refining and marketing businesses, as well as their nationwide transportation and lubrication businesses. Jointly controlled by Shell and Texaco, Equilon's major assets include full or partial ownership in four refineries, about 65 terminals, and various pipelines. Equilon markets gasoline through approximately 9,700 branded gas stations nationwide. Motiva consists of Texaco's, Shell's, and SRI's U.S. eastern and Gulf Coast refining and marketing businesses. Jointly controlled by Texaco, Shell, and SRI, Motiva's major assets include full or partial ownership in four refineries and about 50 terminals, with the companies' products marketed through about 14,000 branded gas stations nationwide.

The Commission's Complaint

According to the Commission's complaint, the merger as proposed would violate Section 7 of the Clayton Act and Section 5 of the FTC Act by substantially reducing competition in each of the following markets: 1) gasoline marketing in the western United States (in Arizona, Idaho, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming), the southern United States (in Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Tennessee, Texas, Virginia, and West Virginia), in Alaska and Hawaii, and smaller local areas; 2) the marketing of California Air Resources Board (CARB) gasoline in California; 3) the refining and bulk supply of CARB gasoline for sale in California; 4) the refining and bulk supply of gasoline and jet fuel in the Pacific Northwest (Washington and Oregon, west of the Cascade mountains; 5) the bulk supply of Phase II Reformulated Gasoline (RFG II) in metropolitan St. Louis, Missouri; 6) the terminaling of gasoline and other light petroleum products in Arizona (Phoenix and Tucson), California (San Diego and Ventura), Mississippi (Collins), and Texas (El Paso), and the Hawaiian islands of Hawaii, Kauai, Maui, and Oahu; 7) the pipeline transportation of crude oil from California's San Joaquin Valley; 8) the pipeline transportation of crude oil to shore from portions of the Eastern Gulf of Mexico; 9) the pipeline transportation of offshore natural gas to shore from locations in the Central Gulf of Mexico; 10) the fractionation of raw mix into natural gas liquids products at Mont Belvieu, Texas; and 11)

the marketing and distribution of aviation fuel to customers in the western and southeastern United States.

In each case, the Commission contends that new entry is unlikely to constrain anticompetitive behavior in the identified markets, that new entrants typically face significant obstacles to becoming effective competitors, and that it is unlikely that such entry would constrain a price increase resulting from the merger as proposed. According to the Commission, if the transaction were allowed to proceed as proposed, either unilateral behavior by the combined Chevron/Texaco, or coordinated behavior among Chevron/Texaco and other remaining competitors, would lead to higher consumer prices.

Terms of the Proposed Order

The proposed order would require Chevron/Texaco to divest all of Texaco's interest in the Alliance, which includes (among other businesses not relevant here) the following: 1) gasoline marketing in Alaska and Hawaii, in the western United States (including Arizona, Idaho, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming), and the southern U.S. (including Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Tennessee, Texas, Virginia, and West Virginia); 2) marketing of CARB gasoline in California; 3) refining and bulk supply of CARB gasoline for sale in California; 4) refining and bulk supply of gasoline and jet fuel in the Pacific Northwest; 5) Texaco's interests in the Explorer Pipeline and the bulk supply of RFG II into St. Louis; 6) terminaling of gasoline and other light petroleum products in several metropolitan areas in Arizona, California, Mississippi, and Texas, and on four Hawaiian islands; 7) the Equilon pipeline that transports crude oil from California's San Joaquin Valley; and 8) the Equilon crude oil pipeline in the eastern Gulf of Mexico.

Regarding assets outside the Alliance, Texaco would be required to divest its one-third interest in the Discovery natural gas pipeline system in the Central Gulf of Mexico within six months after the merger; its interest in the Enterprise fractionating plant in Mont Belvieu within six months after the merger, and its general aviation business in 14 states (Alaska, Alabama, Arizona, California, Florida, Georgia, Idaho, Louisiana, Mississippi, Nevada, Oregon, Tennessee, Utah, and Washington) to Avfuel Corporation, an up-front buyer approved by the Commission, within 10 days of the merger. If this is not accomplished, a broader aviation package would be required to be divested within four months of the merger. The Commission could appoint a trustee to divest this broader package if neither the Avfuel divestiture or broader divestiture is not completed in the time allowed.

Regarding the Alliance assets, Texaco is to divest its interests in the Alliance to Shell and/or SRI on or before the date of the Chevron/Texaco merger. If Texaco has not done so, the Texaco subsidiaries that hold its interest in the Alliance are to be transferred to a trustee, who will have eight months to divest the interests, at no minimum price, to Shell and/or SRI, or to another buyer approved by the Commission. The order specifically provides that Chevron and Texaco may not consummate the merger until Texaco has either divested its interests in the Alliance to Shell and/or SRI, or has transferred the subsidiaries that hold its interests in the Alliance to the trustee.

Shell's and SRI's rights under the agreements establishing the Alliance

are protected by the order at all stages of the divestiture process. Consistent with this protection, respondents must provide Shell and SRI with a copy of the proposed order, including all non-confidential attachments, no less than 30 days before the merger is consummated.

In order to prevent the possibility of interim competitive harm pending the required divestiture, the proposed order also contains a hold separate order designed to ensure that any assets that may be retained by Texaco pending divestiture (including Texaco's interests in the Alliance if the trust is dissolved for any reason prior to accomplishing the required divestiture) will be maintained separately and apart from Chevron.

Record-keeping and Compliance

The proposed order also contains general requirements to ensure proper reporting and compliance by Chevron and Texaco. These terms would require the companies to provide the Commission with a compliance report every 60 days until all of the divestitures are completed. They would also be required to allow the FTC to access their facilities and meet with their employees to determine or secure compliance with the order's terms. Finally, the order provides for Commission notification regarding any changes in the corporate respondents.

The Commission vote to accept the consent order and place a copy on the public record was 4-0, with Chairman Timothy Muris recused. The order will be subject to public comment for 30 days, until October 9, 2001, after which the Commission will decide whether to make it final. Comments should be sent to: Federal Trade Commission, Office of the Secretary, 600 Pennsylvania Ave., N.W., Washington, D.C. 20580.

NOTE: A consent agreement is for settlement purposes only and does not constitute an admission of a law violation. When the Commission issues a consent order on a final basis, it carries the force of law with respect to future actions. Each violation of such an order may result in a civil penalty of $11,000.

Copies of the complaint and consent order are available from the FTC's Web site at *http://www.ftc.gov* and also from the FTC's Consumer Response Center, Room 130, 600 Pennsylvania Avenue, N.W., Washington, D.C. 20580; 202-FTC-HELP (202-382-4357); TDD for the hearing impaired 1-866-653-4261. To find out the latest news as it is announced, call the FTC NewsPhone recording at 202-326-2710.

MEDIA CONTACT:

Mitchell J. Katz
Office of Public Affairs
202-326-2161

STAFF CONTACTS:

Phillip L. Broyles
Bureau of Competition
202-326-2805

(FTC File No. 011-0011)

(http://www.ftc.gov/opa/2001/09/chevtex.htm)

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ANALYSIS OF PROPOSED CONSENT ORDER TO AID PUBLIC COMMENT

I. Introduction

The Federal Trade Commission ("Commission" or "FTC") has issued a complaint ("Complaint") alleging that the proposed merger of Chevron Corporation ("Chevron") and Texaco Inc. ("Texaco") (collectively "Respondents") would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45, and has entered into an agreement containing consent orders ("Agreement Containing Consent Orders") pursuant to which Respondents agree to be bound by a proposed consent order that requires divestiture of certain assets ("Proposed Consent Order") and a hold separate order that requires Respondents to hold separate and maintain certain assets pending divestiture ("Hold Separate Order"). The Proposed Order remedies the likely anticompetitive effects arising from Respondents' proposed merger, as alleged in the Complaint. The Hold Separate Order preserves competition pending divestiture.

II. Description of the Parties and the Transaction

Chevron, headquartered in San Francisco, California, is one of the world's largest integrated oil companies. Chevron is engaged, either directly or through affiliates, in the exploration for, and production of, oil and natural gas; the pipeline transportation of crude oil, natural gas, and natural gas liquids; the refining of crude oil into refined petroleum products, including gasoline, aviation fuel, and other light petroleum products; the transportation, terminaling, and marketing of gasoline and aviation fuel; and other related businesses. During fiscal year 1999, Chevron had worldwide revenues of approximately $35.4 billion and net income of approximately $2.1 billion.

Chevron sold its natural gas and natural gas liquids transportation, distribution and marketing operations to NGC Corporation in 1996 and retained a stock interest in the company. NGC subsequently became Dynegy Inc. Dynegy is engaged in the gathering, processing, fractionation, transmission, terminaling, storage, and marketing of natural gas and natural gas liquids. Chevron owns approximately 26% of Dynegy. Chevron has a long-term strategic alliance with Dynegy for the marketing of Chevron's natural gas and natural gas liquids, and the supply of natural gas and natural gas liquids to Chevron's refineries in the lower 48 states of the United States. Chevron has three positions on Dynegy's Board of Directors. This relationship gives Chevron access to information concerning Dynegy's business and allows Chevron to participate in Dynegy's business decisions.

Texaco, headquartered in White Plains, New York, is one of the world's largest integrated oil companies. Among its other businesses, Texaco is engaged, either directly or through affiliates, in the exploration for, and production of, oil and natural gas; the pipeline transportation of natural gas and natural gas liquids; the pipeline transportation of crude oil; the refining of crude oil into refined petroleum products, including gasoline, aviation fuel, and other light petroleum products; the transportation, terminaling, and marketing of gasoline and aviation fuel; and other related businesses. During fiscal year 1999, Texaco had worldwide revenues of approximately $35.7 billion and net income of approximately $1 2 billion.

In 1998, Texaco contributed its U.S. petroleum refining, marketing and transportation businesses to two joint ventures and retained an interest in the ventures. The joint ventures are Equilon Enterprises, LLC ("Equilon"), which is owned by Texaco and Shell Oil Company ("Shell"), and Motiva Enterprises, LLC ("Motiva"), which is owned by Shell, Texaco, and Saudi Refining, Inc. ("SRI"). The two joint ventures are referred to collectively as "the Alliance."

Equilon consists of Texaco's and Shell's western and midwestern U.S. refining and marketing businesses, and their nationwide transportation and lubricants businesses. Texaco and Shell jointly control Equilon. Equilon's major assets include full or partial ownership in four refineries,

seven lubricants plants, about 65 terminals, and various pipelines. Equilon markets through approximately 9,700 branded gasoline retail outlets in the U.S.

Motiva consists of Texaco's, Shell's, and SRI's U.S. eastern and Gulf Coast refining and marketing businesses. Texaco, Shell and SRI jointly control Motiva. Motiva's major assets include full or partial ownership in four refineries and about 50 terminals. Motiva markets through approximately 14,000 branded gasoline retail outlets.

Pursuant to an agreement and plan of merger dated October 15, 2000, Chevron has agreed to acquire all of the outstanding common stock of Texaco in exchange for stock of Chevron. As a result of the merger, Chevron's shareholders will hold approximately 61%, and Texaco's shareholders will hold approximately 39%, of the new combined entity.

III. The Investigation and the Complaint

The Complaint alleges that the merger of Chevron and Texaco would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45, by substantially lessening competition in each of the following markets: (1) the marketing of gasoline in the western United States (including the States of Arizona, Idaho, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming), the southern United States (including the States of Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Tennessee, Texas, Virginia, and West Virginia), the States of Alaska and Hawaii, and smaller areas contained therein; (2) the marketing of CARB gasoline in the State of California; (3) the refining and bulk supply of CARB gasoline for sale in the State of California; (4) the refining and bulk supply of gasoline and jet fuel in the Pacific Northwest, *i.e.*, the States of Washington and Oregon west of the Cascade mountains; (5) the bulk supply of Phase II Reformulated Gasoline ("RFG II") in the St. Louis metropolitan area; (6) the terminaling of gasoline and other light petroleum products in Arizona (Phoenix and Tucson), California (San Diego and Ventura), Mississippi (Collins), and Texas (El Paso), and the islands of Hawaii, Kauai, Maui, and Oahu in Hawaii; (7) the pipeline transportation of crude oil from California's San Joaquin Valley; (8) the pipeline transportation of crude oil from portions of the Eastern Gulf of Mexico; (9) the pipeline transportation of offshore natural gas to shore from locations in the Central Gulf of Mexico; (10) the fractionation of raw mix into natural gas liquids specification products in the vicinity of Mont Belvieu, TX; and (11) the marketing and distribution of aviation fuel, including aviation gasoline and jet fuel, to general aviation customers in the western United States, including the States of Alaska, Arizona, California, Idaho, Nevada, Oregon, Utah, and Washington, and the southeastern United States, including the States of Alabama, Florida, Georgia, Louisiana, Mississippi, and Tennessee, and smaller areas contained therein.

To remedy the alleged anticompetitive effects of the merger, the Proposed Order requires Respondents to divest all of Texaco's interests in the Alliance (including both Equilon and Motiva), which includes (among other businesses) all of Texaco's interests in the following: (a) gasoline marketing in the States of Alaska and Hawaii, in the Western United States (Arizona, Idaho, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming), and the Southern (Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Tennessee, Texas, Virginia, and West Virginia); (b) marketing of CARB gasoline in California; (c) refining and bulk supply of CARB gasoline for sale in California; (d) refining and bulk supply of gasoline and jet fuel in the Pacific Northwest; (e) the Explorer Pipeline and the bulk supply of RFG II into St. Louis; (f) terminaling of gasoline and other light products in ten metropolitan areas in Arizona, California, Mississippi, and Texas, and four islands in Hawaii; (g) the Equilon pipeline that transports crude oil from California's San Joaquin Valley; and (h) the Equilon crude oil pipeline in the Eastern Gulf of Mexico. In addition to its interest in the Alliance, Texaco must divest its one-third interest in the Discovery pipeline system; its interest in the Enterprise fractionating plant in Mont Belvieu; and its general aviation business in fourteen states (Alaska, Alabama, Arizona, California, Florida, Georgia, Idaho, Louisiana, Mississippi, Nevada, Oregon, Tennessee, Utah, and Washington) to Avfuel Corporation.

The Complaint alleges in 11 counts that the merger would violate the antitrust laws in various lines of business and sections of the country, each of which is discussed below.

A. Count I - Marketing of Gasoline

Chevron and Texaco, through its ownership interest in the Alliance (including Equilon and Motiva), are competitors in the marketing of gasoline in the Western and Southern United States and in the States of Alaska and Hawaii. The marketing of gasoline in numerous markets within these areas would become highly concentrated, or significantly more concentrated, as a result of the proposed merger.[1] For example, in some markets in the states of Louisiana, Mississippi, Oregon and Washington, the proposed merger would increase concentration by more than 1,000 points to HHI levels above 3,000. In many other markets, the proposed merger would result in significant increases in concentration to levels at which competition may be harmed. Complete divestiture of Texaco's ownership interest in the Alliance is the most practical solution to resolve the anticompetitive effects in these markets that would result from the proposed acquisition. This total divestiture will achieve relief in all markets where the merger would substantially lessen competition.

The marketing of gasoline is a relevant line of commerce, *i.e.*, a relevant product market, for which the proposed merger may lead to an increase in price. Gasoline is a motor fuel used in automobiles and other vehicles. It is produced in various grades and types, including conventional unleaded gasoline, reformulated gasoline ("RFG"), California Air Resources Board ("CARB") gasoline, and others. There is no substitute for gasoline as a fuel for automobiles and other vehicles that are designed to use gasoline.

The Complaint alleges that the proposed transaction would lessen competition in the western United States (Arizona, Idaho, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming), the southern United States (Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Tennessee, Texas, Virginia, and West Virginia), the States of the Alaska and Hawaii, and in smaller areas contained therein. Numerous metropolitan areas in the western United States[2] and the southern United States,[3] would be affected by the proposed acquisition. The Commission used metropolitan statistical areas ("MSAs") as a reasonable approximation of geographic markets for gasoline marketing in *Shell Oil Co.*, C-3803 (1998), *British Petroleum Co.*, C-3868 (1999), and *Exxon*, C-3907 (2000).

The marketing segment of the business involves the wholesale and retail sale of branded and unbranded gasoline. Branded gasoline is sold under an oil company trade name (or "flag") such as Chevron, Texaco, Exxon or Shell. Unbranded gasoline is typically sold under a private label or independent trade name. Gasoline is generally sold to the general public through several different types of retail outlets, including: (1) company-operated stations, which are owned and operated by the parent oil company; (2) lessee-dealers, stations leased from the parent oil company, but operated by independent dealers; (3) open dealers, stations owned and operated by independent dealers under a franchise agreement with the parent oil company or under a supply agreement with a distributor; and (4) distributors (or "jobbers"), who own and operate a network of stations in a particular area under a franchise agreement with the parent oil company.

Branded oil companies set the retail prices of gasoline on a station-by-station basis at the stores they operate. Lessee-dealers and many open dealers purchase from the branded company at a delivered price ("dealer tank wagon" or "DTW"). DTW prices charged by major oil companies are typically set using "price zones." Price zones, and the prices used within them, take account of the competitive conditions faced by particular stations or groups of stations and are generally unrelated to the cost of hauling fuel from the terminal to the retail store. Distributors or jobbers typically purchase branded gasoline from the branded company at a terminal (paying a terminal "rack" price), and deliver the gasoline to their own stations or to jobber-supplied stations at prices set by the distributor.

New entry is unlikely to constrain anticompetitive behavior in the markets at issue. New entrants typically face significant obstacles to becoming effective competitors, including obtaining a reliable supply of gasoline at a competitive price, and gaining access to a sufficient number of retail outlets. As a result, it is unlikely that entry will constrain a price increase resulting from the merger.

The Complaint alleges that Texaco, through the Alliance, and Chevron are direct competitors in the marketing of motor gasoline in the relevant geographic areas. The Commission is concerned that the proposed merger would increase the likelihood of coordination among the few participants in the relevant areas, by effectively combining the Chevron, Texaco and Shell brands, which would lead to an increase in the price of gasoline in the affected areas. To address the overlap in gasoline marketing between Chevron and Texaco in the relevant markets, the Proposed Order requires Texaco to divest its interest in Equilon and Motiva.

B. Count II - Marketing of CARB Gasoline

Texaco, through Equilon, and Chevron are competitors in the marketing of CARB gasoline for sale throughout the State of California. The merger would result in highly concentrated markets throughout the State of California.[4] Concentration in some markets, such as Bakersfield, Fresno-Visalia, and Palm Springs, would increase to HHI levels above 2,500. The proposed merger would increase concentration in each of the California markets alleged in the complaint by more than 100 points to HHI levels above 2,000.

The refining and marketing of gasoline in California is tightly integrated, and there are only a small number of independent retail outlets that might purchase from an out-of market firm attempting to take advantage of a price increase by incumbent refiner-marketers. The extensive integration of refining and marketing makes it more difficult for the few non-integrated marketers to turn to imports as a source of supply, since individual independents lack the scale to import cargoes economically and thus must rely on California refiners for their usual supply. Refiners that lack marketing in California, and marketers that lack refineries in these relevant markets, do not effectively constrain the price and output decisions of incumbent refiner-marketers. Entry is not likely to constrain an anticompetitive price increase.

The marketing of CARB gasoline in metropolitan areas in California is a relevant market. CARB gasoline is a motor fuel used in automobiles that meets the specifications of the California Air Resources Board ("CARB"). CARB gasoline is cleaner burning and causes less air pollution than conventional gasoline. Since 1996, the sale or use of any gasoline other than CARB gasoline has been prohibited in California. There are no substitutes for CARB gasoline as a fuel for automobiles and other vehicles that use gasoline in California. In the current investigation and in past decisions, the Commission concluded that the marketing of CARB gasoline in metropolitan areas in California is a relevant market.[5]

More than 90% of the CARB gasoline sold in California is refined by seven vertically-integrated refiners (Chevron, Equilon, BP, Ultramar, Valero, ExxonMobil and Tosco). These seven firms also control more than 90% of retail sales of gasoline in California through gas stations under their brands.

CARB gasoline is a homogeneous product, and wholesale and retail prices are publicly available and widely reported to the industry. Integrated refiner-marketers carefully monitor the prices charged by their competitors' retail outlets, and therefore can readily identify firms that deviate from a coordinated or collusive price.

California is largely isolated from most external sources of supply. CARB gasoline is generally manufactured primarily at refineries in California and at one other refinery located in Anacortes, Washington. The next closest refineries, located in the U.S. Virgin Islands and in Texas and Louisiana, do not supply CARB gasoline to California except during supply disruptions at California refineries. Non-West Coast refineries are unlikely to supply CARB gasoline to California in response to a small but significant and nontransitory increase in price because of the price volatility risks associated with opportunistic shipments.

The Complaint charges that the proposed merger, absent relief, is likely to result in an increased likelihood of coordination in the marketing of CARB gasoline on the West Coast, and is likely to lead to higher prices of CARB gasoline in California. The Complaint further charges that Chevron/Texaco would likely be able to unilaterally increase prices in California in the absence of

coordination. To remedy the likely harm, the Proposed Order requires Texaco to divest its interest in Equilon, which holds Texaco's marketing interests in the State of California.

C. Count III - Refining and Bulk Supply of CARB Gasoline

Texaco, through Equilon, and Chevron are competitors in the refining and bulk supply of CARB gasoline for sale in the State of California.[6] The market for the refining and bulk supply of CARB gasoline would be highly concentrated following the proposed merger. Based on CARB refining capacity, the proposed merger would increase concentration for the refining of CARB gasoline by West Coast refineries by more than 500 points to an HHI level above 2,000.

The refining and bulk supply of CARB gasoline is a relevant product market, and the West Coast is a relevant geographic market. As explained in Count II, only CARB gasoline can be legally sold in the State of California. No refineries outside of California and one Washington refinery regularly produce CARB gasoline in significant quantities. The relevant geographic market is the West Coast. The West Coast is geographically isolated, and California's volatile wholesale gasoline prices discourage imports. Refiners outside of the West Coast are unlikely to bring in CARB gasoline to defeat a price increase. The extensive integration of refining and marketing makes it more difficult for the few non-integrated marketers to turn to imports as a source of supply, since individual independents lack the scale to import cargoes economically and thus must rely on California refiners for their usual supply.

Entry is difficult and unlikely. New refineries are not likely to be built, and the lack of independent buyers in California makes it unlikely that regular supplies would be brought to California by a non-West Coast refiner. A new refinery would face severe environmental constraints and substantial sunk costs.

The Complaint charges that the proposed merger would likely reduce competition in the refining and bulk supply of CARB gasoline in California, thereby increasing wholesale prices of CARB gasoline. The proposed merger increases the likelihood of coordination among refiners, as well as unilateral reduction in output by Chevron/Texaco. The Proposed Order requires Texaco to divest its interest in Equilon, which holds Texaco's interest in the refineries that produce CARB gasoline for sale in California.

D. Count IV - Refining and Bulk Supply of Gasoline and Jet Fuel

Texaco, through Equilon, and Chevron are competitors in the refining and bulk supply of gasoline and jet fuel in the Pacific Northwest, *i.e.*, the States of Washington and Oregon west of the Cascade mountains. The market for the refining and bulk supply of gasoline and jet fuel for the Pacific Northwest would be highly concentrated following the proposed merger. The proposed merger would increase concentration in this market by more than 600 points to an HHI level above 2,000.

Gasoline and jet fuel constitute relevant product markets. There are no substitutes for gasoline in gasoline-fueled automobiles. Jet fuel is a motor fuel used in jet engines. Jet engines must use fuel that meets stringent specifications and cannot switch to any other type of fuel. There is no substitute for jet fuel for jet engines designed to use such fuel.

The Pacific Northwest is a relevant geographic market. Customers in the Pacific Northwest cannot practicably turn outside of the market to obtain supplies in sufficient quantities in response to a small but significant and nontransitory increase in price.

Entry by a refiner would not be likely, timely or sufficient to defeat an anticompetitive price increase. The West Coast as a whole is supply-constrained both in terms of available local production and its geographic isolation from other refining centers. A new entrant would face severe environmental constraints and substantial sunk costs.

The Complaint charges that the proposed merger would eliminate direct competition in the refining

and bulk supply of gasoline and jet fuel between Chevron and Texaco, and would increase the likelihood of collusion or coordinated interaction between Respondents and their competitors, which would likely result in increased prices for the refining and bulk supply of gasoline and jet fuel in the Pacific Northwest. The Proposed Order requires Texaco to divest its interest in Equilon, which holds Texaco's interest in the Alliance's West Coast refineries, to remedy the overlap presented by the merger.

E. Count V - Bulk Supply of Phase II Reformulated Gasoline

Phase II Reformulated Gasoline, referred to as "RFG II," is a motor fuel used in automobiles. RFG II is cleaner burning than some other types of gasoline and causes less air pollution. The United States Environmental Protection Agency requires the use of RFG II in certain areas, including the St. Louis metropolitan area. RFG II is supplied in bulk from facilities that have the ability to deliver large quantities of the product on a continuing basis, such as pipelines or local refineries.

The bulk supply of RFG II is a relevant product market. There are no substitutes for pipelines or refineries for the bulk supply of RFG II. Smaller facilities that deliver RFG II in small quantities, such as tank trucks, are not cost competitive with pipelines or refineries.

One area in which RFG II is required is the St. Louis metropolitan area. Customers in the St. Louis area cannot turn to RFG suppliers outside of the area in response to a small but significant and nontransitory increase in the price of RFG II in the St. Louis area.

Texaco, through Equilon, and Chevron each hold substantial interests in the market for the bulk supply of RFG II in the St. Louis metropolitan area. Chevron owns approximately 16.7% of Explorer Pipeline, and Texaco holds interests totaling approximately 35.9% of Explorer. The Explorer Pipeline is the largest pipeline provider of bulk RFG II supply in the St. Louis metropolitan area. Equilon also has a long-term contract through which it obtains supplies of RFG II for the St. Louis metropolitan area.

The market for the bulk supply of RFG II into the St. Louis metropolitan area is highly concentrated and would become significantly more concentrated following the proposed merger. The proposed merger would increase concentration in this market by more than 1,600 points to an HHI level of 5,000. Entry would not be likely, timely or sufficient to prevent anticompetitive effects resulting from the proposed merger.

The Complaint charges that the proposed merger would substantially lessen competition in the market for the bulk supply of RFG II in the St. Louis metropolitan area by eliminating direct competition between Chevron and Texaco, and by increasing the likelihood of collusion or coordinated interaction in the bulk supply of RFG II in the St. Louis area. The Proposed Order requires Texaco to divest Equilon, which will prevent the increase in concentration that would result from the merger.

F. Count VI - Terminaling

Texaco, through the Alliance, and Chevron are competitors in the terminaling of gasoline and other light petroleum products in metropolitan areas in Arizona, California, Mississippi, and Texas, and on certain islands in the State of Hawaii. The terminaling of gasoline and other light petroleum products in each of these markets would be highly concentrated following the proposed merger. The proposed merger would increase concentration in each of these markets by more than 300 points to HHI levels above 2,000.

The terminaling of gasoline and other light petroleum products is a relevant product market. Terminals are specialized facilities with large storage tanks used for the receipt and local distribution of large quantities of gasoline and other products. There are no substitutes for terminals for these uses. The proposed merger would be likely to lessen competition in Phoenix and Tucson, AZ, San Diego and Ventura, CA, Collins, MS, and El Paso, TX, and on the islands of Hawaii, Kauai, Maui, and Oahu, HI.

Entry is not likely to defeat an anticompetitive increase in the cost of terminaling in the affected areas. The combination of sunk costs, significant scale economies, and environmental regulations make terminal entry unlikely.

The Complaint alleges that the effect of the proposed merger would be to substantially lessen competition in the terminaling of gasoline and other light petroleum products in the relevant markets. Respondents, either unilaterally or in coordination with other terminal operators, would likely be able to increase the price of terminaling gasoline and other light petroleum products in the relevant sections of the country as a result of the merger. The Proposed Order requires Texaco to divest its interests in the Alliance, which holds its interests in the terminals in the relevant areas.

G. Count VII - Crude Oil Pipelines Out of San Joaquin Valley, CA

Texaco, through Equilon, and Chevron are competitors in the pipeline transportation of crude oil from California's San Joaquin Valley. This market is highly concentrated and would become significantly more concentrated as a result of the proposed merger. The proposed merger would increase concentration in this market by more than 800 points to an HHI level above 3,300.

Crude oil pipelines are specialized pipelines for the transportation of crude oil from production fields to refineries or to locations where the crude oil can be transported to refineries by other means. Chevron and Equilon each own a crude oil pipeline that transports crude oil out of the San Joaquin Valley in California. There are no alternatives to pipelines for the transportation of crude oil out of the San Joaquin Valley.

New entry is unlikely to constrain anticompetitive behavior in this market. New pipeline construction requires substantial sunk costs, and existing pipelines have a significant cost advantage over new entrants.

The Complaint alleges that the proposed merger eliminates direct competition between Chevron and Texaco and that the merger, if consummated, increases the likelihood of coordinated interaction for the pipeline transportation of crude oil from the San Joaquin Valley. In order to remedy the anticompetitive effects arising from the proposed merger, the Proposed Order requires Texaco to divest its interest in Equilon, which owns one of the pipelines that transports crude oil from the San Joaquin Valley.

H. Count VIII - Crude Oil Pipelines from the Eastern Gulf of Mexico

Texaco, through Equilon, and Chevron are competitors in the pipeline transportation of crude oil from portions of the Eastern Gulf of Mexico to on-shore terminals. The pipeline transportation of crude oil from locations in the Eastern Gulf of Mexico is highly concentrated and would become significantly more highly concentrated as a result of the proposed merger. The proposed merger would give the combined Chevron/Texaco substantial ownership interests in the only two pipelines that compete to transport crude oil from certain locations in the Eastern Gulf of Mexico.

A relevant product market is the pipeline transportation of crude oil. A relevant geographic market consists of locations in the Eastern Gulf of Mexico, including the Main Pass, Viosca Knoll, South Pass and West Delta Areas, as defined by the Department of Interior Minerals Management Service. There are two pipeline systems that transport crude oil from locations in the Eastern Gulf of Mexico to on-shore terminals: the Delta Pipeline System and the Cypress Pipeline System. The Delta system is wholly owned by Equilon. Chevron owns 50% of the Cypress system and is the operator. There are no alternatives to these two pipelines for the transportation of crude oil from locations in the Eastern Gulf of Mexico to on-shore terminals. Moreover, new entry into this market is unlikely because of the large economies of scale enjoyed by existing pipeline carriers.

The Complaint alleges that Chevron and Texaco are direct competitors in the pipeline transportation of crude oil from portions of the Eastern Gulf of Mexico to on-shore terminals, and that the proposed merger would give Respondents the ability to unilaterally raise prices for the

pipeline transportation of crude oil from locations in the Eastern Gulf. To remedy the Commission's concerns, the Proposed Order requires Texaco to divest its interest in Equilon, which owns the Delta pipeline system.

J. Count IX - Offshore Pipeline Transportation of Natural Gas

Chevron and Texaco own interests in competing offshore natural gas pipelines in the Central Gulf of Mexico. Chevron and its affiliate Dynegy own a combined 77% interest in the Venice Gathering System. Texaco owns approximately 33% of the Discovery Gas Transmission System. Texaco's ownership share is sufficient to allow it to effectively exercise veto control over important aspects of the business of the Discovery pipeline. The pipeline transportation of offshore natural gas to shore from each of the markets alleged in the Complaint is highly concentrated and would become significantly more concentrated as a result of the proposed merger. The proposed merger would give the combined Chevron and Texaco controlling interests in the only two pipelines, or two of only three pipelines, in each of these markets.

The pipeline transportation of natural gas from locations in the Central Gulf of Mexico is a relevant market. Natural gas pipelines are specialized pipelines used to transport natural gas from offshore producing platforms to shore for processing and distribution. There are no alternatives to pipelines for the transportation of natural gas from offshore locations to shore.

The affected areas are certain individual lease blocks[7] in the Central Gulf of Mexico, in areas including the South Timbalier and Grand Isle Areas, and their South Additions, as defined by the Department of Interior Minerals Management Service. Producers within these areas have few or no alternatives to the Discovery and Venice pipelines for transporting natural gas to shore.

Entry is difficult and unlikely. New pipeline construction requires substantial sunk costs, giving existing pipelines a significant cost advantage over new entrants.

The Complaint alleges that the proposed merger will decrease competition in the offshore pipeline transportation of natural gas from the specified blocks in the affected areas. The proposed merger would enable the combined Chevron/Texaco to unilaterally increase price for those areas that have no alternative to Respondents' pipelines, and would increase the likelihood of coordination among pipelines for producers who have only limited alternatives to Respondents' pipelines. To remedy the Commission's competitive concerns, the Proposed Consent Order requires Respondents to divest Texaco's entire interest in the Discovery System, including the offshore natural gas pipeline, processing plant and fractionation plant.

K. Count X - Fractionation of Natural Gas Liquids at Mont Belvieu, TX

Texaco competes with Chevron's affiliate, Dynegy, in the market for the fractionation of natural gas liquids at Mont Belvieu, Texas. Fractionators are specialized facilities that separate raw mix natural gas liquids into specification products such as ethane or ethane-propane, propane, iso-butane, normal-butane, and natural gasoline by means of a series of distillation processes. These specification products are ultimately used in the manufacture of petrochemicals, in the refining of gasoline, and as bottled fuel, among other uses. There are no substitutes for fractionators for the conversion of raw mix natural gas liquids into individual specification products.

Mont Belvieu, TX, is an important hub for the fractionation of raw mix natural gas liquids and the subsequent sale of fractionated specification products. Producers of raw mix natural gas liquids throughout the areas served by Mont Belvieu, which includes much of Texas, New Mexico, and other states, would not likely turn to fractionators located outside Mont Belvieu for their fractionation needs.

There are four facilities providing fractionation services at Mont Belvieu. Chevron's affiliate Dynegy owns large interests in two of the Mont Belvieu fractionators, the Cedar Bayou fractionator and the Gulf Coast fractionator. Chevron's 26% ownership of Dynegy gives it representation on Dynegy's Board of Directors as well as a direct financial stake in Dynegy's prices and profits. Texaco owns a

minority interest in another fractionator known as the Enterprise fractionator.

Competitive concern arises from the ability of a firm in Chevron's position to lessen competition among the few separate facilities in this market. Competitive vigor could be compromised if, for example, sensitive information about one competitor's plans or costs were to become known by another competitor in the market. Also, Texaco's minority interest could provide a swing vote that could prevent the Enterprise fractionating facility from making a competitive move against either of the other two facilities affiliated with Chevron.

The Complaint charges that the proposed merger would lessen competition by eliminating direct competition between Texaco and Chevron's affiliate Dynegy in the fractionation of natural gas liquids at Mont Belvieu; by providing Dynegy with access to sensitive competitive information about one of its most important competitors in Mont Belvieu; by providing Chevron, through its control of Texaco's voting at the fractionator in which Texaco has an interest, with the ability to prevent competition from that fractionator against the other fractionators in Mont Belvieu in which Dynegy has an interest; and by increasing the likelihood that the combination of Chevron and Texaco will unilaterally exercise market power. The Proposed Order requires Chevron to divest Texaco's interest in the Enterprise fractionator within six months to a purchaser approved by the Commission.

L. Count XI - Marketing of Aviation Fuel

Chevron and Texaco are competitors in the marketing of aviation gasoline and jet fuel to general aviation customers in the western United States (Alaska, Arizona, California, Idaho, Nevada, Oregon, Utah, and Washington) and the southeastern United States (Alabama, Florida, Georgia, Louisiana, Mississippi, and Tennessee).

Aviation fuel is used as a motor fuel for aircraft. There are two types of aviation fuel: aviation gasoline and jet fuel. Aviation gasoline is used in piston-powered aircraft engines, while jet fuel is used in jet engines. There are no substitutes for aviation gasoline or jet fuel for aircraft designed to use such fuels. Aviation fuel is sold through several channels of distribution, including the general aviation channel. This channel consists of fixed base operators ("FBOs") that sell fuel at retail to customers at airports, and distributors that sell to FBOs. FBOs in turn sell fuel to general aviation customers such as corporate aircraft, crop dusters, owners of private airplanes, and similar users (other than commercial airlines and military aircraft).

Chevron and Texaco are among only a few marketers of aviation fuel to general aviation customers in the western and southeastern United States. The marketing of aviation fuel to general aviation customers in each of these markets would be highly concentrated as a result of the merger. The proposed merger would increase concentration in the southeastern United States by more than 250 points to an HHI level above 1,900, and would increase concentration in the western United States by more than 1,600 points to an HHI level above 3,400.

The Complaint alleges that the proposed merger will likely lessen competition in the marketing and distribution of aviation fuel to general aviation customers in the western United States and the southeastern United States, by increasing the likelihood that the merged firm will unilaterally exercise market power, and by increasing the likelihood of collusion or coordinated interaction. The Proposed Consent Order requires Respondents to divest Texaco's general aviation business in the western and southeastern United States to an up-front buyer, Avfuel Corporation, within ten (10) days following the merger, to remedy the Commission's concerns.

IV. Resolution of the Competitive Concerns

The Commission has provisionally entered into the Agreement Containing Consent Orders with Chevron and Texaco in settlement of the Complaint. The Agreement Containing Consent Orders contemplates that the Commission would issue the Complaint and enter the Proposed Order and the Hold Separate Order for the divestiture of certain assets described below.

A. The Alliance

The proposed combination of Chevron and Texaco would effectively combine the downstream operations of Chevron, Shell, and Texaco in the United States. In order to deal with the overlap issues involving the downstream segments of the businesses, Paragraphs II - III of the Proposed Order require Respondents to divest Texaco's entire interest in the Alliance. Paragraph IV contains provisions dealing with the licensing of the Texaco brand and Chevron's ability to compete for dealers and distributors using the Texaco brand following the merger.

Paragraph II of the Proposed Order requires Respondents to divest either (a) the Alliance interests to Shell (and SRI in the case of Motiva) no later than the date of the Chevron/Texaco merger, or (b) within eight months after the Chevron/Texaco merger, at no minimum price, either (i) the Alliance interests to Shell (and SRI in the case of Motiva), or (ii) the Texaco subsidiaries that own the Alliance interests (TRMI and TRMI East)[8] to an acquirer or acquirers approved by the Commission. Shell and SRI are appropriate buyers of the assets because they already are partners with Texaco in the Alliance. All assets in each portion of the Alliance already are under common ownership and control, and divestiture of these interests to Shell and SRI would closely maintain the situation that currently exists. If the required divestitures occur prior to or on the date of the Chevron/Texaco merger, they are to be accomplished by Respondents; if they occur after the merger date, they are to be accomplished by a divestiture trustee pursuant to the provisions of Paragraph III of the Proposed Order.

Paragraph II further provides that Chevron and Texaco may not consummate the merger unless and until Texaco has either divested the Alliance interests to Shell and/or SRI, or has transferred TRMI and TRMI East to a trustee. The paragraph also contains provisions that ensure that Shell's and SRI's rights under the agreements establishing the Alliance will be protected. It also provides that, if the trust is rescinded, unwound, dissolved or otherwise terminated at any time before the divestitures have been accomplished, then Respondents will hold TRMI and TRMI East separate and apart from Respondents pursuant to the Hold Separate Order.

If the divestiture has not occurred before the merger, Paragraph III of the Proposed Order requires Respondents to enter into a trust agreement and transfer TRMI and TRMI East to the trustee. A divestiture trustee will then have the sole and exclusive power and authority to divest the Alliance interests, subject to the prior approval of the Commission. The trustee will have eight months to accomplish the divestitures, at no minimum price, to a buyer or buyers approved by the Commission (which could still include Shell and/or SRI). Respondents' transfer of the Alliance interests into trust does not prevent Shell and/or SRI from exercising any rights they may have under the applicable joint venture agreement to acquire Texaco's interests in Equilon or Motiva. Further, if Shell or SRI decline to exercise their rights to acquire Equilon or Motiva under the joint venture agreements, then they may offer to acquire the interests from the trustee, on equal footing with any other interested buyers.

The trust will have a divestiture trustee to accomplish the divestitures, and two operating trustees (one for TRMI and one for TRMI East) to manage and operate the Alliance interests separate and apart from Respondents' operations. The proposed Divestiture Trustee is Robert A. Falise, who most recently has been Chairman and Managing Trustee of the Manville Personal Injury Settlement Trust. Mr. Falise is an attorney and businessman with extensive experience in mergers and acquisitions. The proposed Operating Trustees are Joe B. Foster and John Linehan. Mr. Foster is the Chairman of Newfield Exploration Company, a Houston-based oil and gas exploration and production company that he founded in 1989. Mr. Linehan most recently served as Executive Vice President and Chief Financial Officer of Kerr-McGee Corporation. Both Mr. Foster and Mr. Linehan have extensive experience in the types of business engaged in by the Alliance.

Paragraph IV of the Proposed Order deals with issues concerning the licensing of the Texaco brand. It provides that Respondents shall offer to extend the license for the Texaco brand provided to Equilon and Motiva, on terms and conditions comparable to those in existence when the Agreement Containing Consent Orders was signed, on an exclusive basis until June 30, 2002 for Equilon and June 30, 2003 for Motiva. These dates correspond with the dates when the

franchise agreements expire for many of the Equilon and Motiva distributors.

If Equilon agrees to waive certain provisions in its contracts with distributors and dealers requiring the distributors and dealers to repay money that has been paid or reimbursed by Equilon for various Alliance programs during the past few years, such as station re-imaging, and if it agrees to waive any deed restrictions prohibiting or restricting the sale of motor fuel not sold by Equilon at any retail outlet that does not agree to become a Shell branded outlet, then Texaco shall offer Equilon an additional year of exclusivity (so exclusivity would expire at the same time for both Equilon and Motiva). If Equilon and Motiva waive the provisions described above, Texaco shall offer additional license extensions, on a non-exclusive basis, until June 30, 2006, for all retail outlets for which Equilon and Motiva have entered into agreements for re-branding under the Shell brand. If Equilon or Motiva do not waive the contract provisions requiring repayment from dealers and distributors, then Respondents are required to indemnify the dealers and distributors for all such amounts (plus litigation and arbitration costs), provided that (1) the dealer or distributor has declined a request for payment from Equilon or Motiva, (2) Equilon or Motiva has commenced litigation or arbitration to compel payment, and (3) the dealer or distributor has either defended the litigation or afforded Respondents the right to do so. In addition, no indemnification need be provided for any retail outlet (1) as to which the dealer or distributor terminates its brand relationship prior to the date on which Equilon and Motiva lose their license exclusivity for the Texaco brand (June 30, 2002 or June 30, 2003), (2) which becomes a Shell branded outlet, or (3) which receives compensation for such amounts from another source.

Paragraph IV also provides that, for a period of one year following the date on which Equilon or Motiva stops supplying gasoline under the Texaco brand to any retail outlet branded Texaco as of the date the Agreement Containing Consent Orders is executed by Respondents, Respondents shall not enter into any agreement for the sale of branded gasoline to such retail outlet, sell branded gasoline to such retail outlet, or approve the branding of such retail outlet, under the Texaco brand or under any brand that contains the Texaco brand, unless either (1) such agreement, sale, or approval would not result in an increase in concentration in the sale of gasoline in any metropolitan area (or county outside a metropolitan area), or (2) there are no sales of Chevron branded gasoline in that market. The purpose of this provision is to prevent Respondents from defeating the purpose of the Proposed Order by supplying Texaco-branded gasoline to the same stations that resulted in the original violation.

By requiring divestiture of Texaco's interests in the Alliance, the Proposed Order remedies anticompetitive effects in the following markets: (a) gasoline marketing in markets in the western United States, the southern United States, and the States of Alaska and Hawaii; (b) the marketing of CARB gasoline in California; (c) the refining and bulk supply of CARB gasoline for sale in California; (d) the refining and bulk supply of gasoline and jet fuel in the Pacific Northwest; (e) the bulk supply of RFG II gasoline into St. Louis; (f) the terminaling of gasoline and other light products in markets in the States of Arizona, California, Hawaii, Mississippi, and Texas; (g) the pipeline transportation of crude oil from California's San Joaquin Valley; and (h) the transportation of crude oil from locations in the Eastern Gulf of Mexico.

B. The Non-Alliance Operations

Paragraphs V through VIII of the Proposed Order deal with the divestitures that are required outside of the Alliance.

1. Pipeline Transportation of Offshore Louisiana Natural Gas

Paragraph V of the Proposed Order requires Texaco to divest its interest in the Discovery pipeline, including the associated processing plant and fractionator (collectively the "Discovery System"), within six months of the date of the merger, at no minimum price, to a buyer or buyers that receive the approval of the Commission and only in a manner that receives the prior approval of the Commission. The purpose of the divestiture of Texaco's interest in the Discovery System is to eliminate the overlap of ownership between the Discovery System and the Venice System and to remedy the lessening of competition resulting from the proposed merger as alleged in the Commission's Complaint.

The Proposed Order also provides that Texaco shall resign its position as operator of the Discovery System immediately after it obtains the approvals of the other partners in the Discovery System. In addition, prior to divestiture of Texaco's interest in the Discovery System, Respondents are to offer to enter into an agreement with the acquirer for the purchase, sale or exchange of natural gas liquids that is no less favorable for the acquirer than the terms of an existing contract with one of Texaco's partners in the Discovery System. Texaco owns a natural gas liquids pipeline that transports liquids away from the Discovery fractionator. Williams, a co-owner of the Discovery System, currently has a contract with Texaco for the disposition of its natural gas liquids that are processed at the Discovery fractionator. The purpose of this provision is to ensure that Respondents do not attempt to impose rates or terms for pipeline transportation to markets from the Discovery System's fractionating plant that would impede the ability of the Discovery System to compete for natural gas transportation from the relevant areas in the Central Gulf of Mexico.

2. Fractionation of Natural Gas Liquids at Mont Belvieu, Texas

Paragraph VI of the Proposed Order requires Respondents to divest Texaco's interest in the Enterprise fractionator at Mont Belvieu, at no minimum price, within six months after the merger, to an acquirer that receives the prior approval of the Commission and in a manner that receives the prior approval of the Commission. The purpose of the divestiture of Texaco's interest in the Enterprise fractionator is to eliminate the overlap of ownership between the Enterprise fractionator and other fractionating plants at Mont Belvieu, Texas, in which Respondents or their affiliates own interests, and to remedy the lessening of competition resulting from the proposed merger.

3. Marketing of Aviation Fuel

Paragraph VII of the Proposed Order requires Respondents to divest, within ten days of the merger date, Texaco's general aviation business in 14 states (Alabama, Alaska, Arizona, California, Florida, Georgia, Idaho, Louisiana, Mississippi, Nevada, Oregon, Tennessee, Utah, and Washington), to an up-front buyer, Avfuel Corporation ("Avfuel"). Respondents must sell Texaco's general aviation business to Avfuel pursuant to an agreement approved by the Commission.

Avfuel is an existing marketer of aviation fuel that, unlike most other marketers, is not vertically integrated into the production of aviation gasoline or jet fuel. The company is well regarded as an independent competitive force in the industry, and appears to be particularly well situated to purchase just the assets relating to these 14 states and successfully integrate them into its business. An up-front buyer is preferable for these assets because they consist largely of contractual relationships rather than an on-going divestible business. In addition, because the business being divested consists largely of contractual relationships, an existing participant in the business is likely to have advantages with respect to maintaining and growing these relationships.

In the event Respondents fail to divest Texaco's general aviation business in the relevant areas to Avfuel, the Proposed Order requires Respondents to divest an alternative asset package that is broader than the initial divestiture assets. The broader package consists of Texaco's entire general aviation marketing business in the United States. The package is broader than the package being divested to Avfuel because other buyers may need the entire business in order to be viable. If this broader package is divested, the Order requires that the divestiture be accomplished within four months of the merger date, at no minimum price, to an acquirer that receives the prior approval of the Commission. If neither the divestiture to Avfuel nor the divestiture of the broader package has occurred within four months after the merger, then the Commission will appoint a trustee to divest Texaco's entire general aviation marketing business in the United States.

If the business is not sold to Avfuel pursuant to the agreement, Respondents are required to assign to the other post-merger acquirer all agreements used in or relating to Texaco's domestic general aviation business. If Respondents fail to obtain any such assignments, Respondents are to substitute arrangements sufficient to enable the acquirer to operate the business in the same manner and at the same level and quality as Texaco operated it at the time of the merger's announcement. At the option of the acquirer, Respondents are to enter into an agreement that

grants the acquirer, for a period of up to ten years from the date of such agreement, a license to use the Texaco brand in connection with the operation of Texaco's general aviation business in the U.S. For twelve months following the discontinuation of the supply of Texaco-branded aviation fuel to a fixed base operator or distributor, Respondents may not enter into any contract or agreement for the supply of Texaco-branded aviation fuel to such fixed base operator or distributor, or approve the branding of such fixed base operator or distributor with the Texaco brand. In addition, for six months following the consummation of any post-merger divestiture, Respondents are not to compete for the direct supply of branded aviation fuel to any fixed base operator or distributor that had an agreement for the sale of Texaco-branded aviation fuel in the U.S.

Pursuant to Paragraph VIII of the Proposed Order, if Respondents have failed to divest either: (1) Texaco's general aviation business in the relevant overlap areas, or (2) Texaco's domestic general aviation business within four months of the merger date, the Commission may appoint a trustee to divest Texaco's domestic general aviation business, at no minimum price, to a buyer approved by the Commission.

The purpose of the divestiture of Texaco's general aviation business in the affected areas, or of Texaco's entire domestic general aviation business, is to ensure the continuation of such assets in the same business in which the assets were engaged at the time of the announcement of the merger by a person other than Respondents, and to remedy the lessening of competition alleged in the Complaint.

C. Other Terms

Paragraphs IX - XIII of the Proposed Order detail certain general provisions. Pursuant to Paragraph IX, Respondents are required to provide the Commission with a report of compliance with the Proposed Order every sixty days until the divestitures are completed. Paragraph X requires that Respondents provide the Commission with access to their facilities and employees for the purposes of determining or securing compliance with the Proposed Order.

Paragraph XI provides that, no less than 30 days prior to the merger, Respondents must notify Shell and SRI of the projected merger date and provide copies of the Agreement Containing Consent Orders and all non-confidential documents attached thereto to Shell and SRI.

Paragraph XII provides for notification to the Commission in the event of any changes in the corporate Respondents. Finally, Paragraph XIII provides that if a State fails to approve any of the divestitures contemplated by the Proposed Order, then the period of time required under the Proposed Order for such divestiture shall be extended for sixty days.

V. Opportunity for Public Comment

The Proposed Order has been placed on the public record for thirty (30) days for receipt of comments by interested persons. The Commission, pursuant to a change in its Rules of Practice, has also issued its Complaint in this matter, as well as the Hold Separate Order. Comments received during this thirty day comment period will become part of the public record. After thirty (30) days, the Commission will again review the Proposed Order and the comments received and will decide whether it should withdraw from the Proposed Order or make final the agreement's Proposed Order.

By accepting the Proposed Order subject to final approval, the Commission anticipates that the competitive problems alleged in the Complaint will be resolved. The purpose of this analysis is to invite public comment on the Proposed Order, including the proposed divestitures, and to aid the Commission in its determination of whether it should make final the Proposed Order contained in the agreement. This analysis is not intended to constitute an official interpretation of the Proposed Order, nor is it intended to modify the terms of the Proposed Order in any way.

Endnotes:

1. The Commission measures market concentration using the Herfindahl-Hirschman Index ("HHI"), which is calculated as the sum of the squares of the shares of all firms in the market. *FTC and Department of Justice Horizontal Merger Guidelines ("Merger Guidelines")* § 1.5. Markets with HHIs between 1000 and 1800 are deemed "moderately concentrated," and markets with HHIs exceeding 1800 are deemed "highly concentrated." *Merger Guidelines* § 1.51.

2. Phoenix and Tucson, AZ; Boise, ID; Las Vegas and Reno, NV; Albuquerque-Santa Fe, NM; Eugene, Klamath Falls-Medford, and Portland, OR; Salt Lake City, UT; Seattle-Tacoma, Spokane, and Yakima, WA; and Casper-Riverton, WY. In addition, in Alaska, the relevant areas are Anchorage, Fairbanks, Juneau, Ketchikan, and Sitka. In Hawaii, there are four individual islands, Hawaii, Kauai, Maui, and Oahu, that would be affected by the proposed transaction.

3. Anniston, Birmingham, Decatur-Huntsville, Dothan, and Montgomery, AL; Mobile-Pensacola, AL/FL; Fort Lauderdale-Miami, Fort Pierce-West Palm Beach, Gainesville, and Panama City, FL; Albany, Atlanta, Columbus, Macon, and Savannah, GA; Lexington and Paducah, KY; Alexandria, Baton Rouge, El Dorado-Monroe, Lafayette, Lake Charles, New Orleans, and Shreveport, LA; Biloxi-Gulfport, Columbus-Tupelo-West Point, Hattiesburg-Laurel, Jackson, and Meridian, MS; Greenville-New Bern-Washington, NC; Ada-Ardmore, OK; Lawton-Wichita Falls, OK/TX; Chattanooga, TN; Bristol-Johnson City-Kingsport, TN/VA; Abilene-Sweetwater, Amarillo, Austin, Beaumont-Port Arthur, Brownsville-Harlingen-Weslaco, Corpus Christi, Dallas, El Paso, Fort Worth, Houston, Lubbock, Midland-Odessa, San Angelo, San Antonio, Temple-Waco, and Tyler, TX; Lynchburg-Roanoke and Petersburg-Richmond, VA; and Beckley-Bluefield-Oak Hill, WV.

4. The metropolitan areas alleged in the Complaint are Bakersfield, Chico-Redding, Fresno-Visalia, Los Angeles, Modesto-Sacramento-Stockton, Monterey-Salinas, Oakland-San Francisco-San Jose, Palm Springs, San Diego, and San Luis Obispo-Santa Barbara-Santa Maria.

5. *Shell Oil Co.*, C-3803 (1998); *Exxon*, C-3907 (2000).

6. A bulk supply market consists of firms that have the ability to deliver large quantities of gasoline on a regular and continuing basis, such as pipelines or local refineries.

7. South Timbalier Blocks 30, 37, 38, 44, 45, 58, 59, 61-63, 86-88, 123-35, 151-53, 157, 158, 178-80, 185-87, and 205-08; South Timbalier South Addition Blocks 223-27, 231, 233-37, 248, 251, 256, and 257; Grand Isle Blocks 52, 53, 59, 62, 63, 70-76, 84, and 85; and Grand Isle South Addition Block 86.

8. Texaco's interest in the Alliance is held by a Texaco subsidiary, Texaco Refining and Marketing, Inc. ("TRMI"). A subsidiary of TRMI, known as TRMI East, holds Texaco's interest in Motiva.

Federal Trade Commission
600 Pennsylvania Avenue, NW
Washington, DC 20580

For Release: December 18, 2001

Resolving Anticompetitive Concerns, FTC Consent Order Would Allow Merger of Valero Energy and Ultramar

Valero Required to Divest Golden Eagle Refinery and 70 Ultramar-owned Gasoline Stations

Resolving its competitive concerns regarding the proposed $6 billion merger of petroleum refiners Valero Energy Corporation (Valero) and Ultramar Diamond Shamrock Corporation (Ultramar), the Federal Trade Commission today announced a proposed consent order that would allow the transaction to proceed, but requires Valero to divest Ultramar's Golden Eagle Refinery, bulk gasoline supply contracts, and 70 Ultramar retail service stations in Northern California to a Commission-approved buyer. Both Valero and Ultramar are leading refiners and marketers of CARB gasoline in California. The FTC's complaint states that the merger as proposed could cost California consumers more than 150 million dollars annually if the price of CARB gasoline increased just one cent per gallon due to lost competition from the merger.

CARB gasoline meets the specifications of the California Air Resources Board (CARB). CARB 2 gasoline meets the current Phase 2 specifications in effect since 1996, and is the only gasoline that can be sold to California consumers. CARB 3 gasoline meets the proposed Phase 3 specifications scheduled to go into effect on January 1, 2003, after which it will be the only gasoline that can be sold to the state's consumers.

"The Commission's proposed order will effectively remedy competition lost due to the transaction and ensure that California consumers do not pay any more than they have to for CARB gasoline within the state. The result is a win for consumers," said FTC Bureau of Competition Director Joseph J. Simons.

The Parties and the Proposed Transaction

Valero, headquartered in San Antonio, Texas, is an independent U.S. company engaged in national refining, transportation, and marketing of petroleum products and related petrochemical products. In 2000, the company reported net income of $611 million on revenues of nearly $15 billion, with revenues generated almost exclusively in the United States from seven fuel refineries.

Ultramar is an independent North American refining and marketing company that is also headquartered in San Antonio, Texas. Primarily engaged in the refining, marketing, and transportation of petroleum products and petrochemicals, it reported net earnings of $444 million on operating revenues of $17.1 billion in 2000. Ultramar operates seven refineries in the United States and Canada, with a total throughput of 850,000 barrels per day, marketed through a network of more than 5,000

Related Documents:

Promoting Competition, Protecting Consumers: A Plain English Guide to Antitrust Laws

File No. 011 0141
Docket No. C-4031
In the Matter of Valero Energy Corporation and Ultramar Diamond Shamrock Corporation

Agreement Containing Consent Orders [PDF 10K]

Decision and Order [PDF 29K]

Order to Hold Separate and Maintain Assets [PDF 37K]

Complaint [PDF 13K]

Analysis of Proposed Consent Order to Aid Public Comment

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retail stations.

In an agreement and plan dated May 6, 2001, Valero proposed to merge with Ultramar in a transaction valued at approximately $6 billion. Through the merger, Valero would acquire all of the voting stock of Ultramar, becoming one of the largest petroleum refiners in the United States.

FTC's Anticompetitive Concerns

According to the Commission's complaint, the merger of Valero and Ultramar as proposed would violate Section 7 of the Clayton Act and Section 5 of the FTC Act by substantially lessening competition in each of the following markets: 1) the refining and bulk supply of CARB 2 and CARB 3 gasoline for sale in Northern California; and 2) the refining and bulk supply of CARB 2 and CARB 3 gasoline in the State of California. Specifically, the complaint alleges that the merger would violate the antitrust laws in four product and geographic markets, as detailed below.

Count I of the proposed order concerns the refining and bulk supply of CARB 2 and CARB 3 gasoline for sale in Northern California. According to the Commission, Valero and Ultramar both compete within this market. There are no substitutes in California for CARB 2 gasoline and there will be no substitutes for CARB 3 gasoline when Phase 3 specifications go into effect in 2003. The North Coast (Northern California and Northwest refineries) constitutes the geographic market for refining and bulk supply of CARB 2 and CARB 3 gasoline for sale in Northern California. Five California refiners (ChevronTexaco, Equilon, Phillips, Ultramar, and Valero) currently supply more than 94 percent of the CARB gasoline used in Northern California, with two others supplying virtually all of the remainder.

The Commission contends that following the proposed merger, the North Coast CARB gasoline market would be highly concentrated, with entry by a competing refiner neither timely, likely, nor sufficient to prevent the anticompetitive effects of the proposed merger. It further contends that any efficiencies that might be realized through the transaction are small compared to the magnitude of the potential harm and, even if achieved, would not restore the competition lost from the merger. In addition, the complaint charges that the proposed transaction, by reducing competition, would lead to higher CARB wholesale prices gasoline in Northern California by: 1) eliminating direct competition between Valero and Ultramar; 2) increasing the likelihood that the combined company will unilaterally increase prices; and 3) increasing the ability and likelihood of coordinated interaction between the company and its competitors in Northern California. The ultimate result, according to the FTC, could be a substantial increase in the cost of CARB gasoline to Northern California consumers; even a price increase of one cent per gallon would increase the cost to these consumers by approximately $60 million per year.

Count II of the proposed order concerns the refining and bulk supply of CARB 2 and CARB 3 gasoline for sale in California. Valero and Ultramar compete in these markets as well, with seven refiners (BP America, ChevronTexaco, Equilon, ExxonMobil, Phillips, Ultramar, and Valero) supplying more than 97 percent of CARB gasoline consumed in California. Kern Oil and Tesoro supply virtually all of the remainder. The seven refiner-marketers account for more than 95 percent of retail gasoline sales in California through their branded retail stations, according to the complaint. Other refiners would be unlikely to supply CARB gasoline to

California in response to a small sustained price increase.

Following the proposed merger, the West Coast (California) market for the refining and bulk supply of CARB 2 gasoline would be in the upper end of the moderately concentrated range, according to the Commission. CARB 3 gasoline refining capacity, however, would be highly concentrated. Entry by a competitor in these markets would be neither timely, likely, nor sufficient to prevent the alleged anticompetitive impacts, and any efficiencies gained would be small compared to the magnitude of competitive harm and unlikely to restore the competition lost from the merger. In addition, the FTC contends that the proposed merger would likely substantially reduce competition in the refining and bulk supply of CARB gasoline for sale in California by: 1) eliminating direct competition between Valero and Ultramar; and 2) increasing the ability and likelihood of coordinated interaction between the combined company and its California competitors. The Commission contends that the merger could raise the cost of CARB gasoline to California consumers by at least $150 million annually for every one cent per gallon price increase.

The Proposed Consent Order

Under the terms of the proposed consent order, Valero must divest: 1) the Ultramar Golden Eagle Refinery, located in Avon, California; 2) all bulk gasoline supply contracts associated with that refinery; and 3) 70 Ultramar retail service stations in Northern California. The bulk supply contracts and retail divestitures would give the buyer sufficient refinery demand to assure that the buyer has incentives equivalent to Ultramar.

According to the Commission, the refinery divestiture would effectively restore the competitive status quo that existed in both markets (detailed above) prior to the merger. Valero and Ultramar are the only major refiners in California with excess capacity beyond their marketing needs. This excess (or "swing") capacity assures competitive supply to non-integrated marketers, local refiners, and wholesalers and helps to dampen price spikes during shortages resulting from refinery outages. By ensuring that this swing production will continue after the merger, the Commission's order would maintain bulk supply competition and help reduce price spikes. The proposed divestiture would also eliminate the combined firm's ability and incentive to unilaterally reduce production and raise prices. In addition, Valero and Ultramar are the primary suppliers of unbranded wholesale gasoline to independent marketers and compete directly for this business in Northern California. As these unbranded marketers provide lower-cost competition to branded refiner-marketers, the order will help ensure that the remaining independent marketers have two vigorous competitors for their business, thus helping them to survive and provide lower cost alternatives for consumers. This competition, according to the FTC, will in turn increase the incentive for Valero and the acquirer of the divested assets to make the investments necessary to maintain and increase production of CARB gasoline.

The divestiture would also complicate the ability of CARB gasoline refiners to coordinate their production, the Commission contends, because there would be more refiners than there would be without the divestiture. Finally, although the divestiture would have the most direct effect in Northern California, according to the FTC, it would also help competition in California as a whole, with maintained production in the northern part of the state leading to more product availability statewide.

Other Terms of the Proposed Order

The proposed order contains other terms designed to ensure the companies' compliance. First, if the companies fail to make the required divestitures, the Commission could appoint a trustee to divest the Golden Eagle refinery package (or a substitute package containing Ultramar's two California refineries and all of its company-owned retail stations). In addition, the companies would be required to meet specific compliance and reporting requirements, and to avoid conflicts between the proposed order and state consent decrees. If a state fails to approve any of the divestitures under the Commission's order, the Commission's divestiture period would be extended for 60 days. Finally, the proposed order also contains an Order to Hold Separate, under which the assets to be divested must be maintained as viable and competitive pending their sale to a Commission-approved buyer.

The Commission conducted its investigation in collaboration with the Attorneys General of California, Oregon and Texas. As part of this joint effort, Valero and Ultramar will enter into state decrees with California and Oregon.

The Commission vote to accept the proposed consent order and place a copy on the public record was 4-0, with Chairman Timothy J. Muris not participating. The order will be subject to public comment for 30 days, until January 18, 2002, after which the Commission will decide whether to make it final. Comments should be sent to: Federal Trade Commission, Office of the Secretary, 600 Pennsylvania Ave., N.W., Washington, D.C. 20580.

NOTE: A consent agreement is for settlement purposes only and does not constitute an admission of a law violation. When the Commission issues a consent order on a final basis, it carries the force of law with respect to future actions. Each violation of such an order may result in a civil penalty of $11,000.

The FTC's Bureau of Competition seeks to prevent business practices that restrain competition. The Bureau carries out its mission by investigating alleged law violations and, when appropriate, recommending that the Commission take formal enforcement action. To notify the Bureau concerning particular business practices, call or write the Office of Policy and Evaluation, Room 394, Bureau of Competition, Federal Trade Commission, 600 Pennsylvania Ave, N.W., Washington, D.C. 20580, Electronic Mail: antitrust@ftc.gov; Telephone (202) 326-3300. For more information on the laws that the Bureau enforces, the Commission has published "Promoting Competition, Protecting Consumers: A Plain English Guide to Antitrust Laws," which can be accessed at http://www.ftc.gov/bc/compguide/index.htm.

MEDIA CONTACT:

Mitchell J. Katz

Office of Public Affairs

202-326-2161

STAFF CONTACT:

Peter Richman

Bureau of Competition

202-326-2563

(FTC File No. 011-0141; Docket No. C-4031)

(http://www.ftc.gov/opa/2001/12/valero.htm)

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ANALYSIS OF PROPOSED CONSENT ORDER TO AID PUBLIC COMMENT

I. Introduction

The Federal Trade Commission ("Commission" or "FTC") has issued a complaint ("Complaint") alleging that the proposed merger of Valero Energy Corporation ("Valero") and Ultramar Diamond Shamrock Corporation ("Ultramar") (collectively "Respondents") would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45, and has entered into an agreement containing consent orders ("Agreement Containing Consent Orders") pursuant to which Respondents agree to be bound by a proposed consent order that requires divestiture of certain assets ("Proposed Consent Order") and a hold separate order that requires Respondents to hold separate and maintain certain assets pending divestiture ("Hold Separate Order"). The Proposed Order remedies the likely anticompetitive effects arising from Respondents' proposed merger, as alleged in the Complaint. The Hold Separate Order preserves competition pending divestiture.

II. Description of the Parties and the Transaction

Valero, headquartered in San Antonio, Texas, is an independent domestic refining company. Valero is engaged in national refining, transportation, and marketing of petroleum products and related petrochemical products. Valero reported 2000 net income of $611 million on revenues of nearly $15 billion. Valero's revenues are generated almost exclusively in the United States from seven fuel refineries.

Ultramar is an independent North American refining and marketing company also headquartered in San Antonio, Texas. It is primarily engaged in the refining, marketing and transportation of petroleum products and petrochemicals. Ultramar reported 2000 net earnings of $444 million on operating revenues of $17.1 billion. Ultramar operates seven refineries in the United States and Canada with a total throughput of 850,000 barrels per day, marketed through a network of over 5,000 branded retail stations.

Pursuant to an agreement and plan of merger dated May 6, 2001, Valero proposes to merge with Ultramar in a transaction valued at approximately $6 billion. Valero intends to acquire 100% of the voting stock of Ultramar. As a result of the merger, Valero will be one of the largest refiners in the United States.

III. The Investigation and the Complaint

The Complaint alleges that the merger of Valero and Ultramar would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45, by substantially lessening competition in each of the following markets: (1) the refining and bulk supply of CARB 2 and CARB 3 gasoline for sale in Northern California; and (2) the refining and bulk supply of CARB 2 and CARB 3 gasoline in the State of California.

To remedy the alleged anticompetitive effects of the merger, the Proposed Order requires Respondents to divest the Ultramar Golden Eagle refinery located in Avon, California. Along with the refinery assets, Respondents will divest bulk gasoline supply contracts and 70 Ultramar Northern California retail service stations. This will assure the new entrant a consistent CARB gasoline demand to assure that the entrant possesses the same incentives to produce CARB gasoline that Ultramar had pre-merger.

The Commission's decision to issue the Complaint and enter into the Agreement Containing Consent

Orders was made after an extensive investigation in which the Commission examined competition and the likely effects of the merger in the markets alleged in the Complaint and in several other markets, including markets for asphalt refining and pipeline transportation, and terminaling or marketing of gasoline or other fuels in sections of the country other than those alleged in the Complaint. The Commission has concluded that the merger is unlikely to reduce competition significantly in markets other than those alleged in the Complaint.

The Commission conducted the investigation leading to the Complaint in collaboration with the Attorneys General of the States of California and Oregon. As part of this joint effort, Respondents have entered into State Decrees with these States settling charges that the merger would violate both state and federal antitrust laws.

The Complaint alleges that the merger would violate the antitrust laws in four product and geographic markets, each of which is discussed below. The analysis applied in each market generally follows the analysis set forth in the FTC and U.S. Dep't of Justice *Horizontal Merger Guidelines* (1997) ("*Merger Guidelines*").

Count I - Refining and Bulk Supply of CARB 2 and CARB 3 Gasoline for Sale in Northern California

Valero and Ultramar compete in the refining and bulk supply of CARB gasoline for sale in Northern California.[1] Refining and bulk supply of CARB 2 and CARB 3 gasoline are relevant product markets. CARB gasoline meets the specifications of the California Air Resources Board ("CARB"). CARB 2 automotive gasoline meets the current Phase 2 specifications in effect since 1996 and is the only gasoline that can be sold to California gasoline consumers. CARB 3 automotive gasoline meets the proposed Phase 3 specifications that are scheduled to go into effect on January 1, 2003. After that date, CARB 3 will be the only gasoline that can be sold to California gasoline consumers. Thus, there are no substitutes for CARB 2 gasoline today and there will be no substitutes for CARB 3 gasoline. In the current investigation and in past decisions, the Commission concluded that the refining and bulk supply of CARB 2 gasoline is a relevant market.[2]

The North Coast (Northern California and Northwest refineries) constitutes a relevant geographic market for the refining and bulk supply of CARB 2 and CARB 3 gasoline for sale in Northern California. The North Coast refiners can profitably raise prices in Northern California by a small but significant and nontransitory amount without losing significant sales to other bulk suppliers. Five California refiners (ChevronTexaco (Chevron), Equilon (Shell/Texaco), Phillips (Tosco), Ultramar, and Valero) supply more than 94% of the CARB gasoline consumed in Northern California; Kern Oil (Bakersfield, California) and Tesoro (Anacortes, Washington) supply virtually all the remainder during normal market operations. The next closest refineries, located in the Los Angeles area, are unlikely to supply CARB gasoline to Northern California in response to a small but significant and nontransitory increase in price because of the transportation costs to ship from Southern California.

The North Coast market would be highly concentrated following the proposed merger.[3] Based on current CARB refining capacity, the proposed merger would increase concentration for the refining of CARB 2 gasoline by Northern California and Northwest refineries by more than 750 points to an HHI level above 2,700. Based on forecasted CARB 3 refining capacity, the proposed merger would increase concentration for the refining and bulk supply of CARB 3 gasoline by Northern California and Northwest refineries by more than 1,050 points to an HHI level above 3,050.

Entry is difficult and would not be timely, likely, or sufficient to prevent anticompetitive effects arising from the proposed merger. Building a new refinery is extremely unlikely due to the severe environmental constraints and substantial sunk costs. Imports of CARB gasoline from outside California are unlikely because of substantial import barriers, including (1) geographic isolation from potential outside sources; (2) cost and difficulty of producing CARB gasoline; (3) lack of potential customers because of the extensive integration of refining and marketing that has eliminated most independent gasoline marketers and retailers; and (4) price risk stemming from spot market volatility in Northern California.

The efficiency claims of the Respondents, to the extent they relate to these markets, are not cognizable under the *Merger Guidelines*, are small compared to the magnitude of the potential harm, and would not restore the competition lost by the merger even if the efficiencies were achieved.

The Complaint charges that the proposed merger would likely substantially reduce competition in refining and bulk supply of CARB gasoline for sale in Northern California, thereby increasing wholesale prices of CARB gasoline by (1) eliminating direct competition between Valero and Ultramar; (2) increasing the likelihood that the combined company will unilaterally raise prices; and (3) increasing the ability and likelihood of coordinated interaction between the combined company and its competitors in Northern California. The proposed merger would create a highly concentrated market in Northern California. The combined company would control between 40 and 45% of CARB gasoline refining capacity in Northern California. Under the *Merger Guidelines*, these figures trigger a presumption that "the merger will create or enhance market power or facilitate its exercise . . . " *Merger Guidelines* § 1.51(c). These anticompetitive effects could result either from unilateral action by the combined firm or from coordinated interaction among the remaining refiners. Valero's post-merger market share supports a presumption under the *Merger Guidelines* that it would have the ability and incentive to unilaterally reduce supply in Northern California and raise prices. It could do this in a variety of ways, including reducing or eliminating capacity expansions at the Bay Area refineries, running the refineries at below capacity, or exporting gasoline out of the market.

The merger increases the likelihood of coordinated interaction in Northern California by reducing the number of significant refiners in the market from five to four. The market exhibits characteristics that are conducive to coordinated interaction, including (1) homogenous product; (2) small number of market participants; (3) high concentration; (4) recognition by participants that individual output decisions impact the market; (5) difficult entry conditions that insulate the market from outside supply; (6) vertical integration that eliminates potential low-cost competitors and creates a finite and identifiable collusive group; and (7) industry practices and conditions that allow the collusive group to easily detect and punish cheating on the tacit agreement.

The merger could raise the costs of CARB gasoline to Northern California consumers substantially; even a one cent per gallon price increase would cost Northern California consumers more than $60 million annually. To remedy the harm, the Proposed Order requires the Respondents to divest Ultramar's Golden Eagle refinery, which refines CARB gasoline, and 70 Ultramar retail service stations supplied from the Golden Eagle refinery, as described more fully below. This divestiture will eliminate the refining and bulk supply overlap in the North Coast market otherwise presented by this merger.

Count II - Refining and Bulk Supply of CARB Phase 2 and CARB Phase 3 Gasoline for Sale in California

Valero and Ultramar compete in refining and bulk supply of CARB gasoline for sale in California. As explained in Count I, only CARB gasoline can be sold legally in California. Refining and bulk supply of CARB 2 and CARB 3 gasoline are relevant product markets.

The West Coast constitutes a relevant antitrust geographic market for refining and bulk supply of CARB 2 and CARB 3 gasoline for sale in California. The West Coast refiners can profitably raise prices by a small but significant and nontransitory amount without losing significant sales to other refiners. Seven California refiners (BP (Arco), ChevronTexaco (Chevron), Equilon (Shell/Texaco), ExxonMobil, Phillips (Tosco), Ultramar, and Valero) supply more than 97% of the CARB gasoline consumed in California; Kern Oil (Bakersfield, California) and Tesoro (Anacortes, Washington) supply virtually all the remainder during normal market operations.

The seven refiner-marketers also account for more than 95% of retail gasoline sales in California through their branded retail stations. One effect of the close integration between refining and marketing in California is that refiners outside the West Coast cannot easily find outlets for imported cargoes of CARB gasoline, since nearly all the outlets are controlled by incumbent refiner-marketers. Likewise, the extensive integration of refining, marketing and bulk storage makes it more difficult for the few non-integrated marketers to turn to imports as a source of supply, since the few remaining independent marketers lack the scale to import cargoes economically and thus must rely on California

refiners for their usual supply.

Other than the California refineries and one Washington refinery, no other refineries regularly produce CARB gasoline in significant quantities. The next closest refineries, located in the U.S. Virgin Islands, Texas and Louisiana, do not supply CARB gasoline to California except during significant price spikes caused by supply disruptions at California refineries. These refineries are unlikely to supply CARB gasoline to California in response to a small but significant and nontransitory increase in price due to (1) transportation costs from other refineries; (2) limited access to marine and bulk storage facilities; (3) lack of potential customers because of the extensive integration of refining and marketing that has eliminated most independent gasoline marketers and retailers; and (4) price risk stemming from spot market volatility in California.

The West Coast market for the refining and bulk supply of CARB 2 gasoline would be at the upper end of the moderately concentrated range following the proposed merger. Based on current refining capacity, the proposed merger would increase concentration for the refining of CARB 2 gasoline by California and Washington refineries by more than 325 points to an HHI level above 1,750. Based on forecasted CARB 3 refining capacity, the proposed merger would result in a highly concentrated market, increasing concentration for the refining and bulk supply of CARB 3 gasoline by California and Washington refineries by more than 390 points to an HHI level above 1,850.

Entry is difficult and would not be timely, likely, or sufficient to prevent anticompetitive effects arising from the proposed merger. Building a new refinery is unlikely due to the severe environmental constraints and substantial sunk costs. Imports of CARB gasoline from outside California are unlikely because of the substantial import barriers listed above.

The efficiency claims of the Respondents, to the extent they relate to these markets, are not cognizable under the *Merger Guidelines*, are small compared to the magnitude of the potential harm, and would not restore the competition lost by the merger even if the efficiencies were achieved.

The Complaint charges that the proposed merger would likely reduce competition in refining and bulk supply of CARB gasoline for sale in California, thereby increasing wholesale prices of CARB gasoline by (1) eliminating direct competition between Valero and Ultramar; and (2) increasing the ability and likelihood of coordinated interaction between the combined company and its competitors in California. This market exhibits the same characteristics conducive to coordinated interaction identified in Count I. The proposed merger reduces the number of CARB gasoline refiners in California and increases concentration, thereby increasing the likelihood of coordination.

The merger could raise the costs of CARB gasoline to all California consumers substantially; even a one cent per gallon price increase would cost California consumers more than $150 million annually. To remedy the harm, the Proposed Order requires the Respondents to divest the refining and marketing assets identified above in Count I. This divestiture will eliminate the refining and bulk supply overlap in the West Coast market otherwise presented by this merger.

IV. Resolution of the Competitive Concerns

A. *CARB Gasoline Refining and Bulk Supply*

The Commission has provisionally entered into the Agreement Containing Consent Orders with Valero and Ultramar in settlement of the Complaint. The Agreement Containing Consent Orders contemplates that the Commission would issue the Complaint and enter the Proposed Order and the Hold Separate Order for the divestiture of certain assets described below. The Commission will appoint R. Shermer & Company, Inc. as the hold separate trustee.

To remedy the lessening of competition in refining and bulk supply of CARB 2 and CARB 3 gasoline alleged in Counts I and II of the Complaint, Paragraph II of the Proposed Order requires Respondents to divest Ultramar's Golden Eagle refinery and 70 Ultramar-owned and operated gas stations supplied from the Golden Eagle refinery to an acquirer approved by the Commission. (¶ II.A.) The retail divestiture is ordered to maintain the likelihood that the owner of the Golden Eagle refinery will

have incentives to produce CARB gasoline and other petroleum products equivalent to Ultramar's pre-merger incentives. The divestiture of Ultramar's Golden Eagle refinery, with associated Ultramar retail assets, will not significantly reduce the amount of gasoline available to non-integrated marketers, since the refinery will likely continue to produce CARB gasoline and other products and will need outlets for its sale.

Divestiture of the Golden Eagle refinery will effectively restore the competitive status quo *ante* in both markets. Valero and Ultramar are the only major refiners in California with excess capacity above their direct marketing needs. This excess (or "swing") capacity helps to dampen price spikes during shortages resulting from refinery shutdowns. Elimination of this swing production would lead to greater and longer price spikes during refinery outages. The divestiture will eliminate the combined company's ability and incentive to unilaterally reduce production and raise prices. In addition, Valero and Ultramar are the primary suppliers of unbranded wholesale gasoline to independent marketers and, in Northern California, they compete directly for this business. These unbranded marketers provide lower-cost competition to the branded refiner-marketers. The divestiture will insure that the remaining independent marketers have two vigorous competitors for their business, thus helping them to survive and continue to provide a lower-cost alternative for consumers. This competition, in turn, will increase the incentive for Valero and the acquirer to supply more CARB gasoline, thus, increasing swing capacity. The divestiture will complicate the ability of the Northern California refiners to coordinate their production because there will be more refiners than there would be without the divestiture. Valero and the acquirer will likely have different incentives than the integrated refiner-marketers and may be less willing to coordinate output decisions with the refiner-marketers. Although the divestiture will have the most direct effect in Northern California, it will also help competition in California as a whole; since supplies are longer in Northern California, CARB gasoline typically flows north to south. Maintaining production in Northern California will therefore result in more product availability throughout the state.

In considering an application to divest the Ultramar Golden Eagle refinery and associated marketing assets to an acquirer, the Commission will consider the acquirer's ability and incentive to invest and compete in the businesses in which Ultramar was engaged in California. The Commission will consider, *inter alia*, whether the acquirer has the business experience, technical judgment and available capital to continue to invest in the refinery in order to maintain CARB gasoline production even in the event of changing environmental regulation.

B. *Other Terms*

Paragraphs III - VII of the Proposed Order detail certain general provisions. Pursuant to Paragraph III, if Respondents fail to comply with the divestiture ordered in Paragraph II, the Commission may appoint a trustee to effectuate the divestiture of the Golden Eagle Refinery and the 70 retail stations, or substitute a package containing Ultramar's two California refineries and all of Ultramar's company-operated retail stations. Paragraph IV requires the Respondents to provide the Commission with a report of compliance with the Proposed Order every sixty days until the divestitures are completed.

Paragraph V provides for notification to the Commission in the event of any changes in the corporate Respondents. Paragraph VI requires that Respondents provide the Commission with access to their facilities and employees for the purposes of determining or securing compliance with the Proposed Order. Finally, to avoid conflicts between the Proposed Order and the State consent decrees, Paragraph VII provides that if a State fails to approve any of the divestitures contemplated by the Proposed Order, then the period of time required under the Proposed Order for such divestiture shall be extended for sixty days.

V. Opportunity for Public Comment

The Proposed Order has been placed on the public record for thirty (30) days for receipt of comments by interested persons. The Commission, pursuant to a change in its Rules of Practice, has also issued its Complaint in this matter, as well as a Hold Separate Order. Comments received during this thirty day comment period will become part of the public record. After thirty (30) days, the Commission will again review the Proposed Order and the comments received and will decide whether it should withdraw from the Proposed Order or make final the Proposed Order.

By accepting the Proposed Order subject to final approval, the Commission anticipates that the competitive problems alleged in the Complaint will be resolved. The purpose of this analysis is to invite public comment on the Proposed Order, including the proposed divestitures, and to aid the Commission in its determination of whether it should make final the Proposed Order contained in the agreement. This analysis is not intended to constitute an official interpretation of the Proposed Order, nor is it intended to modify the terms of the Proposed Order in any way.

Endnotes:

1. A bulk supply market consists of firms that have the ability to deliver large quantities of gasoline on a regular and continuing basis, such as pipelines or local refineries.

2. Shell Oil Co., C-3803 (1998). Exxon, C-3907 (2000); Chevron, C-4023 (Proposed Order 2001).

3. The Commission measures market concentration using the Herfindahl-Hirschman Index ("HHI"), which is calculated as the sum of the squares of the shares of all firms in the market. *FTC and Department of Justice Horizontal Merger Guidelines ("Merger Guidelines")* § 1.5. Markets with HHIs between 1000 and 1800 are deemed "moderately concentrated," and markets with HHIs exceeding 1800 are deemed "highly concentrated." *Merger Guidelines* § 1.51.

Federal Trade Commission
600 Pennsylvania Avenue, NW
Washington, DC 20580

For Release: August 30, 2002

Related Documents

Conoco Inc. and Phillips Petroleum Company, File No. 021 0040, Docket No. C-4058

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With Conditions, FTC Approves Merger of Phillips and Conoco

Rocky Mountain Divestitures Would Maintain Gasoline Refining and Marketing Competition

The Federal Trade Commission today announced a proposed consent order with Phillips Petroleum Company (Phillips) and Conoco Inc. (Conoco) that would allow the merger of the two companies to proceed upon their agreement to sell certain assets and provide other relief. Without these conditions, the Commission stated in its complaint, the proposed merger would violate federal antitrust laws and lead to decreased competition through an increase in the likelihood of coordinated interaction, particularly in the Rocky Mountain region of the United States.

"The Commission's action today reflects our ongoing effort to enforce vigorously the antitrust laws in all aspects of the energy sector," said Joe Simons, Director of the FTC's Bureau of Competition. "Especially noteworthy is our action in the Rocky Mountain region where divestitures will maintain competition in the gasoline refining market."

On November 18, 2001, Phillips and Conoco agreed to merge the two companies, with the combined firm to be known as ConocoPhillips. At that time, it was estimated that the value of the new corporation would be approximately $35 billion.

Parties to the Transaction

Headquartered in Bartlesville, Oklahoma, Phillips is an integrated oil company engaged in the worldwide exploration, production, and transportation of crude oil and natural gas; the gathering of natural gas; the fractionation of raw mix into certain products; refining, marketing, and transportation of petroleum products; and the production and marketing of chemicals. Phillips has approximately 10 percent of the nation's refining capacity and has about nine percent of the nation's gasoline sales. In 2001 it had revenues of $47.7 billion.

Phillips has significant terminal facilities that it uses to distribute gasoline and other petroleum products. It owns or licenses several gas brands which are sold at approximately 11,700 stations throughout the United States. Phillips owns approximately 1,700 outlets in the Mid-Atlantic and Northeastern United States, where gas is sold under the Exxon and Mobil brands. Of the 10,000 remaining outlets, most are owned and operated by independent marketers and dealers. Phillips also owns slightly more than 30 percent of Duke Energy Field Services, LLC (DEFS), a significant natural gas gatherer, and has interests in many fractionation facilities nationwide.

Conoco, headquartered in Houston, Texas, is also a fully integrated petroleum company engaged in the worldwide exploration, production, and transportation of crude oil and natural gas; gathering of natural gas; fractionation; and refining, marketing, and transportation of petroleum products. In 2001, the company had revenues of $39.5 billion. Conoco has approximately three percent of the nation's refining capacity and three percent of the gas sales in the United States. Conoco owns petroleum product terminals throughout the nation, with its branded gasoline sold at approximately 5,000 stations, most of which are in the Southeast, Southwest, Mid-continent, and Rocky Mountain regions. Most of these stations are owned and operated by independent distributors and dealers.

The Commission's Complaint

According to the Commission's complaint, the merger of Phillips and Conoco as proposed would violate both Section 5 of the FTC Act and Section 7 of the Clayton Act by illegally lessening competition in the following markets: 1) the bulk supply of light petroleum products in Eastern Colorado and Northern Utah; 2) light petroleum product terminaling services in the metropolitan statistical areas (MSAs) of Spokane, Washington, and Wichita, Kansas; 3) the bulk supply of propane in Southern Missouri, the St. Louis MSA, and Southern Illinois; 4) natural gas gathering in more than 50 sections of the Permian Basin in New Mexico and Texas; and 5) the fractionation processes in Mont Belvieu, Texas.

In each of the markets described above, the FTC's complaint contends that the combination of Phillips and Conoco would allow the new firm to raise prices unilaterally or in combination with other companies and that entry into the relevant markets would be untimely, unlikely, and insufficient to deter or counteract the anticompetitive effects that may result from the merger.

Terms of the Proposed Consent

Under the terms of the proposed order, the companies would be required to: 1) divest the Phillips refinery in Woods Cross, Utah, and all of Phillips' related marketing assets served by that refinery; 2) divest Conoco's Denver refinery in Commerce City, Colorado, and all of Phillips' marketing assets in Eastern Colorado; 3) divest Phillips' light petroleum products terminal in Spokane, Washington; 4) enter into a petroleum products throughput agreement with another terminal services firm that includes an option to buy a 50 percent undivided interest in Phillips' Wichita, Kansas, light petroleum products terminal; 5) divest Phillips' propane terminal assets in Jefferson City, Missouri, and East St. Louis, Illinois, and provide a long-term propane supply agreement; 6) divest certain Conoco natural gas gathering assets in Chavez, Lea, and Eddy Counties in New Mexico, along with Conoco's Maljamar processing facility and natural gas gathering assets in Schleicher County, Texas, and enter into a long-term agreement to process natural gas gathered in Texas; and 7) create firewalls that prevent the transfer of competitively sensitive information among the Mont Belvieu fractionators.

The Analysis of the Proposed Consent Order to Aid Public Comment, which is available on the FTC's Web site as a link to this press release, describes in detail the specific products and services to be divested in each of the asset categories above, related brand licensing agreements and their terms and geographic coverage, the time frame in which the

divestitures be completed, and whether prior Commission notification of the proposed buyer would be required. The Analysis also notes that the order would require the companies to maintain the viability and marketability of the assets until they are divested. Finally, for certain divestitures, the Analysis details actions that the order requires the companies take if they are unable to find a Commission-approved buyer within the time allotted.

Also, under the terms of the proposed order, a trustee would be appointed if the companies fail to complete one or more of the required divestitures. The companies also would be required to provide the Commission with compliance reports every 60 days, until each of the divestitures is completed, and to notify the FTC with regard to any changes relevant to the terms of the order. The FTC would have access to the companies' facilities and employees to ensure they are complying with the order. In addition, if any state fails to approve the divestitures specified in the proposed order, the time period allowed for that divestiture would be extended for 90 days. The proposed order would expire 10 years after the date it is finalized by the Commission.

The vote to accept the proposed consent order and place a copy on the public record was 5-0. The proposed consent order will be subject to public comment for 30 days, until October 2, 2002, after which the Commission will determine whether to make it final. Comments should be sent to: FTC, Office of the Secretary, 600 Pennsylvania Ave., N.W., Washington, D.C. 20580.

NOTE: A consent agreement is for settlement purposes only and does not constitute an admission of a law violation. When the Commission issues a consent order on a final basis, it carries the force of law with respect to future actions. Each violation of such an order may result in a civil penalty of $11,000.

Copies of the complaint, proposed consent order and an analysis to aid public comment are available from the FTC's Web site at http://www.ftc.gov and also from the FTC's Consumer Response Center, Room 130, 600 Pennsylvania Avenue, N.W., Washington, D.C. 20580. The FTC's Bureau of Competition seeks to prevent business practices that restrain competition. The Bureau carries out its mission by investigating alleged law violations and, when appropriate, recommending that the Commission take formal enforcement action. To notify the Bureau concerning particular business practices, call or write the Office of

Policy and Evaluation, Room 394, Bureau of Competition, Federal Trade Commission, 600 Pennsylvania Ave. N.W., Washington, D.C. 20580. Electronic Mail: antitrust@ftc.gov; Telephone (202) 326-3300. For more information on the laws that the Bureau enforces, the Commission has published "Promoting Competition, Protecting Consumers: A Plain English Guide to Antitrust Laws," which can be accessed at http //www.ftc.gov/bc/compguide/index.htm.

MEDIA CONTACT:

Derick Rill

Office of Public Affairs

202-326-2161 or 202-326-2472

STAFF CONTACT:

Mark Menna

Bureau of Competition

202-326-2722

(FTC File No.: 021-0040)
(http://www.ftc.gov/opa/2002/08/phillipsconoco.htm)

Analysis of Proposed Consent Order to Aid Public Comment

I. Introduction

The Federal Trade Commission ("Commission" or "FTC") has issued a complaint ("Complaint") alleging that the proposed merger of Phillips Petroleum Company ("Phillips") and Conoco Inc. ("Conoco") (collectively "Respondents") would violate Section 7 of the Clayton Act, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45. The Commission and Respondents have entered into an agreement containing consent orders ("Agreement Containing Consent Orders") pursuant to which Respondents agree to be bound by a proposed consent order that requires divestiture of certain assets and certain other relief ("Proposed Order") and a hold separate order that requires Respondents to hold separate and maintain certain assets pending divestiture ("Hold Separate Order"). The Proposed Order remedies the likely anti-competitive effects arising from Respondents' proposed merger, as alleged in the Complaint. The Order to Hold Separate and Maintain Assets preserves competition pending divestiture.

II. Description of the Parties and the Transaction

Phillips, headquartered in Bartlesville, Oklahoma, is an integrated oil company engaged in the worldwide exploration, production, and transportation of crude oil and natural gas; gathering of natural gas; fractionation of raw mix into specification products; refining, marketing, and transportation of petroleum products; and production and marketing of chemicals. Phillips is the nation's third largest refiner and fourth largest gasoline marketer, with approximately 10 percent of the United States refining capacity and 9 percent of gasoline marketing. In 2001, Phillips had revenues of $47.7 billion. Phillips has significant terminal facilities that it uses to distribute gasoline and other petroleum products to its customers. Phillips owns or licenses several gasoline brands under which gasoline is sold at approximately 11,700 stations throughout the United States. Phillips owns approximately 1,700 outlets in the Mid-Atlantic and Northeastern areas of the United States. These outlets currently sell gasoline under the Exxon and Mobil brands. Of the approximate 10,000 other outlets, primarily located outside the Mid-Atlantic and Northeastern United States, the great majority are owned and operated by independent marketers and dealers. Phillips also owns slightly more than 30 percent of Duke Energy Field Services, LLC ("DEFS"). DEFS is a significant gatherer of natural gas throughout the United States and has interests in many fractionation facilities throughout the United States.

Conoco, headquartered in Houston, Texas, is a fully integrated petroleum company engaged in the worldwide exploration, production, and transportation of crude oil and natural gas; gathering of natural gas; fractionation of raw mix into specification products; and refining, marketing, and transportation of petroleum products. In 2001, Conoco had revenues and net income of $39.5 billion and $1.6 billion, respectively. Conoco has approximately 3 percent of refining capacity and 3 percent of gasoline sales in the United States, making it approximately the nation's eleventh largest refiner and ninth largest gasoline seller. Conoco owns petroleum product terminals throughout the United States. Conoco brand gasoline is sold through approximately 5,000 stations primarily located in the Southeast, Southwest, Mid-continent, and Rocky Mountain areas of the United States. The great majority of these stations are owned and operated by independent distributors and dealers.

On November 18, 2001, Phillips and Conoco entered into an agreement to merge the two firms into a corporation to be known as ConocoPhillips, the estimated capital value of which, as of the date of the agreement, was approximately $35 billion. ConocoPhillips would be the third-largest integrated U.S. energy company based on market capitalization, and oil and gas reserves and production. Worldwide, it will be the sixth-largest energy company based on hydrocarbon reserves and the fifth-largest global refiner.

III. The Complaint

The Complaint alleges that the proposed merger and its consummation would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45. The Complaint alleges that the merger will lessen competition in each of the following markets: (1) the bulk supply of light petroleum products (a) in Eastern Colorado and (b)

in Northern Utah; (2) light petroleum product terminaling services in the metropolitan statistical areas ("MSAs") of Spokane, Washington and Wichita, Kansas; (3) the bulk supply of propane in (a) Southern Missouri, (b) the St. Louis MSA, and (c) Southern Illinois; (4) natural gas gathering in more than 50 sections of the Permian Basin; (5) and fractionation in Mont Belvieu, Texas.

Count I of the Proposed Complaint concerns the bulk supply of light petroleum products for sale in Eastern Colorado. Both Phillips and Conoco compete within this market. The Complaint alleges that the merged firm would have more than 30 percent of the market, which will be highly concentrated post-merger. The Complaint further alleges that the proposed merger would lead to higher prices for light petroleum products because the merged firm, in combination with other similarly situated firms, could profitably coordinate to raise prices and reduce output in Eastern Colorado. Successful coordination is likely because: (1) prices for bulk supplies are transparent; (2) the merged firm and its similarly situated competitors have the ability to inexpensively divert bulk supplies away from Eastern Colorado to other markets; (3) other sources of bulk supply to Eastern Colorado are already largely at capacity (products pipelines and local refineries) or suppliers have no economic incentive to divert light petroleum products from more lucrative areas in the Rockies to Eastern Colorado; and (4) cheating on the coordination could be detected and punished by coordinating firms. Furthermore, there is some evidence that some degree of coordination has been lifting prices in areas of the Rockies outside of Eastern Colorado.

Count II of the Proposed Complaint concerns the bulk supply of light petroleum products for sale in Northern Utah. Phillips competes in this market through its ownership of a refinery in Salt Lake City, and Conoco competes in this market through its 50 percent undivided ownership interest in Pioneer Pipeline, the only pipeline bringing bulk supplies of light petroleum products into Northern Utah. The Complaint alleges that the merged firm would own or control about 24 percent of the refining and pipeline capacity serving Northern Utah, and that Northern Utah will be highly concentrated after the merger. The Complaint asserts that in highly concentrated markets, increasing concentration is likely to facilitate and more completely give effect to tacit coordination. With respect to entry into the bulk supply market, the Complaint alleges that in either Eastern Colorado or Northern Utah, entry is difficult and would not be timely, likely, or sufficient to deter or counteract anticompetitive effects that may result from the merger.

Count III of the Proposed Complaint concerns terminaling services in the Spokane, Washington MSA. Petroleum terminals are facilities that provide temporary storage of gasoline and other petroleum products received from a pipeline, and then redeliver these products from the terminal's storage tanks into trucks or transport trailers for ultimate delivery to retail gasoline stations or other buyers. There are no economic substitutes for petroleum terminals. The Complaint alleges that Conoco and Phillips are two of the only three providers of terminal services in Spokane. The Complaint further alleges that the merged firm would be able to unilaterally, or in concert with others, raise prices of terminaling services in Spokane. Entry into the terminaling of light petroleum products is difficult and would not be timely, likely, or sufficient to deter or counteract anticompetitive effects that may result from the merger.

Count IV of the Proposed Complaint concerns terminaling services in the Wichita, Kansas MSA. There are five firms currently providing terminaling services in the Wichita market. Some of these competitors are unlikely to restrain a price increase in the future. The Complaint charges that the terminaling of light petroleum products in Wichita is highly concentrated, and would become significantly more concentrated as a result of the merger. The Complaint alleges that the merged firm would be able coordinate or raise prices unilaterally in Wichita. Entry into the terminaling of light petroleum products is difficult and would not be timely, likely, or sufficient to deter or counteract anticompetitive effects that may result from the merger.

Count V of the Proposed Complaint concerns the bulk supply of propane in Southern Missouri. Propane is a versatile fuel used by residential, industrial and agricultural consumers. It is produced as part of the crude refining process or extracted from natural gas. Bulk supply of propane is the provision of large quantities of propane to an area for distribution by wholesale distributors. In most of its applications, propane is used where natural gas is not available. The Complaint charges that Phillips and Conoco are two of four bulk suppliers of propane in Southern Missouri. There is reason to believe that other competitors are unlikely to effectively constrain the merged firm's pricing. In

Southern Missouri, the merged firm would control the vast majority of the propane market. The Complaint alleges that the merger likely would enable ConocoPhillips to unilaterally raise prices (or reduce output) or to coordinate with other suppliers in the bulk supply of propane in Southern Missouri. Entry into the bulk supply of propane is difficult and would not be timely, likely, or sufficient to deter or counteract anticompetitive effects that may result from the merger.

Counts VI and VII of the Proposed Complaint concern the bulk supply of propane in the St. Louis MSA and Southern Illinois areas, respectively. There are four bulk suppliers in St. Louis and Southern Illinois. There is reason to believe that other competitors are unlikely to effectively constrain the merged firm's pricing. The Complaint alleges that ConocoPhillips could raise prices unilaterally or in concert with others. The Complaint further alleges that entry into the bulk supply of propane is difficult and would not be timely, likely, or sufficient to deter or counteract anticompetitive effects that may result from the merger.

Count VIII of the Proposed Complaint concerns natural gas gathering in several areas of the Permian Basin. The Permian Basin is an oil and gas rich area of western Texas and southeastern New Mexico. The relevant markets are limited to many small areas within Eddy, Chavez and Lea counties in New Mexico and Schleicher County, Texas. The likely production rates of the natural gas fields in the overlap areas and cost of building gathering lines in the Permian Basin limit the markets to areas with a radius of no more than three miles. Phillips owns about 30 percent of DEFS. Conoco is a substantial competitor in providing gathering services in the Permian Basin. The Complaint alleges that DEFS and Conoco are the only competitors in the areas identified by the Commission. The Complaint alleges that after the merger, ConocoPhillips' complete or partial ownership of the only two gathering systems would likely reduce competition. The Complaint alleges that there are substantial costs to entering the gathering business such that entry would not be timely, likely, or sufficient to deter or counteract anticompetitive effects that may result from the merger.

Count IX of the Proposed Complaint concerns fractionation of raw mix into specification products, such as butane and ethane. The Complaint alleges that there is no alternative to fractionation services. Many pipelines deliver raw mix and transport fractionated specification products from Mont Belvieu, Texas. There are four fractionators in Mont Belvieu. Mont Belvieu is an active trading hub for each specification product. DEFS owns an interest in two fractionators and Conoco has an interest in a third fractionator. The Complaint alleges that the combined firm would have access to competitively sensitive information of Mont Belvieu fractionators accounting for more than 70 percent of the market capacity and would have veto rights over significant expansion decisions. The Complaint further alleges the merger would reduce competition by allowing fractionation competitors to share information and exercise veto rights over expansion decisions. The Complaint charges that there are substantial entry barriers in fractionation in Mont Belvieu such that entry would not be timely, likely, or sufficient to deter or counteract anticompetitive effects that may result from the merger.

IV. The Proposed Consent Order

The Proposed Order is designed to remedy the alleged anti-competitive effects of the proposed merger. Under the terms of the Proposed Order, the merged firm must: (1) divest the Phillips refinery located at Woods Cross, Utah, and all of Phillips' related marketing assets served by that refinery; (2) divest Conoco's Denver refinery located at Commerce City, Colorado, and all of Phillips' marketing assets in Eastern Colorado; (3) divest Phillips light petroleum products terminal in Spokane, Washington; (4) enter into a petroleum products throughput agreement that includes an option to buy a 50 percent undivided interest in Phillips' Wichita, Kansas, light petroleum products terminal; (5) (a) divest Phillips' propane terminal assets in Jefferson City, Missouri, and East St. Louis, Illinois; and (b) provide a long-term propane supply agreement; (6) divest certain Conoco natural gas gathering assets in New Mexico and Texas, including Conoco's Maljamar processing facility and enter into a long-term agreement to process natural gas gathered in Texas; and (7) create firewalls that prevent the transfer of competitively sensitive information among Mont Belvieu fractionators.

A. Phillips Woods Cross Assets

Paragraph II of the Proposed Order requires the divestiture of the Phillips Woods Cross assets to restore competition in the bulk supply of light petroleum products in Northern Utah. The assets to be

divested include Phillips' refinery located in Woods Cross, Utah, and substantially all of the related distribution, marketing and retail operations. This includes the refinery, crude oil supply pipelines, truck loading racks, light petroleum product pipelines and storage terminals used in the operation of the refinery. The assets to be divested also include all gasoline retail stations currently owned by Phillips and served by the Woods Cross refinery and, by assignment, all Phillips' agreements with marketers served by the Woods Cross refinery. Respondents will also be required to provide to the buyer of the assets Phillips proprietary (branded) and non-proprietary credit card services, Phillips additive, and brand support at Phillips' costs.

The Proposed Order will require Respondents to grant to the acquirer an exclusive 10-year royalty free license to use brands currently used by Phillips in Utah, Wyoming, Montana and Idaho to sell gasoline, kerosene, diesel fuel and any other product typically sold at a gasoline station through the gasoline outlet channel of distribution and a nonexclusive 10-year royalty free license to use brands currently used by Phillips in Utah, Wyoming, Montana and Idaho to sell those products typically sold in gasoline stations (e.g, motor oil) outside of the gasoline outlet channel of distribution.

The assets must be divested to a buyer receiving prior approval from the Commission within 12 months of the date Respondents executed the Agreement Containing Consent Orders, and Respondents must maintain the viability and the marketability of the assets until they are divested.

B. Colorado Assets

Paragraph III of the Proposed Order requires the divestiture of refinery and marketing assets to restore competition in the bulk supply of light petroleum products in Eastern Colorado. The assets to be divested include Conoco's refinery located in Commerce City, Colorado, and all of the related distribution assets, including crude oil supply pipelines, truck loading racks, light petroleum product pipelines and storage terminals used in the operation of the refinery, and pipeline assets ensuring the distribution of jet fuel.

The assets to be divested also include: (1) all gasoline retail stations that are currently owned by Phillips located in Colorado and, by assignment, all Phillips' agreements with marketers served by Phillips' Eastern Colorado bulk supply assets; (2) an exclusive 10-year royalty free license to use brands currently used by Phillips in Colorado to sell gasoline, kerosene, diesel fuel and any other product typically sold at a gasoline station through the gasoline outlet channel of distribution; (3) a nonexclusive 10-year royalty free license to use brands currently used by Phillips in Colorado to sell products typically sold at gasoline stations (e.g, motor oil) through channels outside of gasoline outlets; and (4) provision of Phillips proprietary (branded) and non-proprietary credit card services, Phillips additive, and brand support at Phillips' costs.

These refinery and marketing assets must be divested to a buyer receiving prior approval from the Commission within 12 months of the date Respondents executed the Agreement Containing Consent Orders, and Respondents must maintain the viability and the marketability of the assets until they are divested.

C. Phillips' Propane Assets

Paragraph IV of the Proposed Order restores competition in bulk supplies of propane by requiring Respondents to divest the Phillips propane business and associated assets to a buyer receiving prior approval of the Commission by January 15, 2003. Respondents must divest all the physical assets (storage, truck racks, pipelines connecting the storage tanks to common carrier pipelines and truck racks) related to Phillips' propane terminal operations in Jefferson City, Missouri, and East St. Louis, Illinois. Phillips must also assign all propane supply agreements between Phillips and its customers from those terminals. The acquirer will have the unqualified ability to expand the propane terminal assets. The Proposed Order also imposes restrictions on Respondents to ensure that the buyer of the propane business obtains nondiscriminatory access to the Blue and Shocker Lines. With access to the Blue Line and Shocker Line common carrier pipelines, the acquirer will be able to ship propane to the Jefferson City or East St. Louis terminals from the propane market in Conway, Kansas. Until the propane assets are divested, Respondents must maintain the viability and the marketability of those assets.

Paragraph IV.D. requires Respondents to, by the date of divesting the Propane Business, enter into a propane supply contract with the acquirer of the divested propane business. The contract must give the acquirer the ability to purchase propane at a price equal to the price at Conway, Kansas, plus the Blue Line and Shocker Line tariffs from Conway to the applicable terminal.

Respondents must also enter into a terminal operating agreement with the buyer of the propane business. The agreement must provide for the maintenance, upkeep, repair, security, and operation of the Jefferson City, Missouri, and East St. Louis, Illinois, terminals at Respondents' actual costs.

In the event that Respondents are unable to divest the propane business by January 15, 2003, to a buyer receiving prior approval of the Commission and in a manner approved by the Commission, Respondents must divest: (1) a 50 percent undivided interest in the Blue Line between Borger, Texas, and the connection to the Shocker Line (near Wichita, Kansas); (2) the Shocker Line; (3) Respondents' entire interest in the Blue Line from the connection with the Shocker Line to the East St. Louis, Illinois terminal; (4) the East St. Louis terminal; (5) the Jefferson City, Missouri terminal, and (5) the Ringer, Kansas terminal.

D. Phillips' Spokane Terminal

Paragraph V of the Proposed Order requires the Respondents to divest the Phillips terminal in Spokane, Washington, no later than six months after the date Respondents execute the Agreement Containing Consent Orders. The acquirer of the Phillips Spokane Terminal must have the prior approval of the Commission. Until Phillips Spokane Terminal is effectively divested, Respondents will be required to maintain the viability and the marketability of the terminal. The purpose for the sale of Phillips Spokane Terminal is to maintain the existing level of competition.

E. Phillips' Wichita Terminal

Paragraph VI of the Proposed Order requires the parties to enter into a 10-year products throughput agreement with Williams Pipe Line Company, LLC ("Williams"), or another firm, receiving the prior approval of the Commission, within nine months of Respondents' execution of the Agreement Containing Consent Orders. Williams owns and operates common carrier refined products pipelines and terminals serving, among others, the Mid-continent areas of the United States. The throughput agreement must provide for at least 8,500 barrels per day and cannot specify a minimum volume. The agreement must also provide for the acquisition of additive and information technology services, and provide an option to purchase a 50 percent undivided interest in Phillips terminal assets in Wichita, Kansas.

F. Natural Gas Gathering

Paragraph VII of the Proposed Order requires the Respondents to divest all of Conoco's natural gas gathering, compression, processing and transportation assets within specified areas of Chavez, Lea and Eddy Counties in New Mexico, within nine months from the date Respondents execute the Agreement Containing Consent Orders. These assets include Conoco's Maljamar Processing Plant, and all necessary agreements or contracts related to the operation of that plant. The Commission must give its prior approval before any acquirer may purchase these assets. Until these assets are sold, they will be placed into an Order to Hold Separate and Maintain Assets.

Paragraph VIII of the Proposed Order requires the Respondents to divest all of Conoco's assets related to the gathering, compression, transportation or sale of natural gas within Schleicher County, Texas, within nine months from the date Respondents execute the Agreement Containing Consent Orders. This includes all gathering pipelines and any related contracts or agreements. The Commission must give its prior approval before any acquirer may purchase these assets. Until these assets are sold, they will be placed into an Order to Hold Separate and Maintain Assets. In addition, Respondents must enter into a processing agreement with the buyer of the divested assets. The processing agreement must allow the buyer to process at least the same volume of natural gas that is currently gathered on the system at Conoco's cost. This cost includes all direct costs, including raw materials, labor, utilities and third-party contract services actually used to provide services to the

acquirer of the gathering assets. In addition, cost may include the pro rata share of the cost of the capital employed in the processing plant and indirect costs related to operating the processing plant, including taxes, depreciation, overhead and third-party contracts.

G. Fractionation

Paragraph IX of the Proposed Order contains four provisions ensuring that Respondents cannot transfer competitively sensitive information among fractionators or exercise voting rights to thwart expansion. First, beginning at the date of execution of the Agreement Containing Consent Orders, the Proposed Order prohibits Respondents from sharing competitively sensitive fractionation information with DEFS, Duke (owner of approximately 70 percent of DEFS), or any DEFS Board Member. Second, Respondents may not receive from Duke, DEFS, or any DEFS board member any competitively sensitive fractionation information of DEFS. Third, ConocoPhillips DEFS board members may not participate in any discussions with DEFS or Duke relating to the three fractionators in which Respondents and DEFS own an interest. Fourth, ConocoPhillips DEFS Board Members may not participate in any vote of the DEFS board, unless such a vote is necessary and, if such a vote is necessary, then the ConocoPhillips DEFS Board Members must vote in the same way as the majority of the Duke DEFS Board Members.

H. Other Terms

Paragraph X sets the guidelines for the appointment and powers of a Divestiture Trustee should the Respondents fail to complete one or more of the divestitures discussed above. Paragraph XI requires the Respondents to provide the Commission with a report of compliance with the Proposed Order every sixty days until the divestitures are completed. Paragraph XII provides for notification to the Commission in the event of any changes in the Respondents. Paragraph XIII requires the Respondents to provide the Commission with access to their facilities and employees for the purposes of determining or securing compliance with the Proposed Order. Paragraph XIV provides, among other things, that if a State fails to approve any of the divestitures contemplated in the Proposed Order, then the period of time required under the Proposed Order for such divestiture will be extended for ninety days. Finally, Paragraph XV provides that the Proposed Order will terminate ten years after the date the Order becomes final.

V. Gasoline Retail and Marketing Assets

In this instance, the Commission is not seeking gasoline marketing relief outside the bulk supply areas discussed above (Eastern Colorado and Northern Utah). After a thorough investigation, the Commission concluded that the proposed merger of Phillips and Conoco is not likely to have any anticompetitive effect on gasoline marketing in the Mid-continent, Southeastern, or Southwestern United States. The Commission considered several factors in reaching its decision not to seek retail relief in those areas. First, Phillips and Conoco own and/or operate few retail outlets. With the exception of a small number of cities, Phillips and Conoco gasoline distribution relies significantly on independent gasoline marketers. Further, Conoco and Phillips, unlike the other major refiners, have not imposed significant costs of switching brands or de-branding on the predominant share of their marketers. Neither Phillips nor Conoco engage in redlining or zone pricing in areas investigated in this merger. Thus, the degree of vertical control over jobbers by Conoco and Phillips in these regions is significantly less than that exercised by other refiners in other parts of the country. Further, the Commission has found significant growth of low-priced gasoline retailing by supermarkets, club stores and mass merchandisers. The entry of these gasoline distribution competitors likely will prevent the merging firm from raising prices in the Mid-continent, Southeast and Southwest. In addition, entry by these low-priced competitors has induced jobbers to switch brands and de-brand. Entry and growth by low-priced formats are likely to continue in these areas, in part, because of a plentiful supply of gasoline and diesel fuel. Areas under investigation in this merger have common carrier pipelines and terminals delivering and storing gasoline to both branded and unbranded jobbers. For these and other reasons, the Commission does not have reason to believe that the merger of Conoco and Phillips would lessen competition substantially in the Mid-continent, Southeast and Southwest.

VI. Opportunity for Public Comment

The Proposed Order has been placed on the public record for thirty days for receipt of comments by interested persons. Comments received during this period will become part of the public record. After thirty days, the Commission will again review the Proposed Order and the comments received and will decide whether it should withdraw from the Proposed Order or make it final. By accepting the Proposed Order subject to final approval, the Commission anticipates that the competitive problems alleged in the complaint will be resolved. The purpose of this analysis is to invite public comment on the Proposed Order, including the proposed divestitures, to aid the Commission in its determination of whether to make the Proposed Order final. This analysis is not intended to constitute an official interpretation of the Proposed Order, nor is it intended to modify the terms of the Proposed Order in any way.

Federal Trade Commission
600 Pennsylvania Avenue, NW
Washington, DC 20580

For Release: September 27, 2002

Related Documents

Shell Oil Company and Pennzoil-Quaker State Company, File No. 021 0123, Docket No. C-4059

Resolving Anticompetitive Concerns, FTC Clears Shell Oil's $1.8 Billion Acquisition of Pennzoil-Quaker State

Divestiture Required to Maintain Competition and Prevent Increased Prices in U.S. and Canadian Market for Group II Paraffinic Base Oils

Addressing concerns that Shell Oil Company's (Shell) proposed $1.8 billion acquisition of Pennzoil-Quaker State Company (Pennzoil) would lead to reduced competition and higher prices in the U.S. and Canadian market for Group II paraffinic base oil, the Federal Trade Commission today conditionally approved the transaction, while requiring certain divestitures to ensure continued competition in this market in the future. Under the terms of the proposed consent order, Shell and Pennzoil would sell Pennzoil's interest in its Excel Paralubes joint venture with Conoco Inc. (Conoco) to a Commission-approved buyer and would freeze Pennzoil's ability to obtain additional Group II supply under an existing agreement with ExxonMobil Corporation (ExxonMobil) at approximately current levels.

Group II base oil is one of three types of paraffinic base oils produced in the United States and Canada. Paraffinic base oil is used to produce motor oil and other lubricants, and is needed to meet current performance standards for lighter-viscosity motor oil formulations, such as 5-W20 and 5-W30, as well as requirements for other lubricants.

"As new performance standards are adopted, there will be an even greater demand for Group II base oil in the production of motor oil and other lubricants," said Joe Simons, Director of the FTC's Bureau of Competition. "Without the conditions of this order, direct competition between Shell and Pennzoil in the production of Group II base oils would be eliminated, with the significant potential for reduced competition and higher prices for consumers."

Parties to the Transaction

Shell Oil Company, headquartered in Houston, Texas, is the U.S. operating entity for the Royal Dutch/Shell Group of Companies (collectively referred to as Shell). Shell is engaged in nearly all aspects of the energy business, including exploration, production, refining, transportation, distribution, and marketing. During fiscal year 2001, Shell had worldwide revenues of approximately $135.2 billion and net income of approximately $10.9 billion.

Pennzoil, also headquartered in Houston, manufactures and markets lubricants, branded and unbranded motor oils, transmission fluids, gear lubricants, greases, automotive polishes, automotive chemicals, car care products, other automotive products, and specialty industrial products. Pennzoil makes and markets conventional and synthetic motor oils,

primarily under the Pennzoil and Quaker State brands. Pennzoil also is involved in the franchising, ownership, and operation of Jiffy Lube quick lube oil change centers. In fiscal year 2001, Pennzoil had worldwide revenues of approximately $2.3 billion.

Under the terms of the proposed merger, Shell would acquire all outstanding voting securities of Pennzoil. The transaction is structured so that Shell ND, a wholly-owned subsidiary of Shell, would acquire the Pennzoil shares and then be merged into Pennzoil, with Pennzoil then becoming a wholly-owned subsidiary of Shell.

Relevant Joint Venture and Agreement

Pennzoil has a 50/50 joint venture with Conoco Inc., (now ConocoPhillips, as a result of a proposed consent order with the FTC announced on August 30, 2002) called Excel Paralubes, that operates a base oil refinery in Westlake, Louisiana. Pennzoil gets a substantial portion of its base oil requirements from its interest in Excel Paralubes. It also has a 10-year base oil supply agreement with ExxonMobil Corporation, which became effective on August 1, 2000, as a result of the FTC order that allowed the merger of Exxon and Mobil. Under the terms of that agreement, Pennzoil is entitled to up to 6,500 barrels of base oil per day from ExxonMobil, in grades and quantities that are in proportion to ExxonMobil's Gulf Coast base oil production. Part of this volume consists of Group II paraffinic base oil.

The Commission Complaint

According to the FTC's complaint, the merger of Shell and Pennzoil would violate Section 7 of the Clayton Act and Section 5 of the FTC Act by substantially lessening competition in the refining and marketing of Group II paraffinic base oil in the United States and Canada. Shell and Pennzoil are competitors within this highly concentrated market, and following the merger as proposed, Shell would control at least 39 percent of Group II refining capacity in the United States and Canada. There is little Group II production outside of the defined market.

Further, the complaint contends that entry into the market by another competitor would not be timely, likely, or sufficient to remedy the likely anticompetitive effects of the proposed merger. Constructing a new Group II base oil refining facility (or converting a Group I base oil facility) would require a significant investment, would be subject to regulatory obstacles, and would take several years to complete. Absent such entry, the FTC anticipates that the post-merger price of Group II base oils would increase by a substantial amount, especially as new motor oil standards are developed that require even greater use of Group II base oil.

Absent the relief provided in the proposed order, the complaint alleges that the elimination of direct competition between Shell and Pennzoil would lead to higher Group II base oil prices, stemming from the new company's ability to exercise unilateral market power and the increased likelihood of coordinated interaction.

The Proposed Consent Order

Under the terms of the proposed order, Shell and Pennzoil would be required to divest Pennzoil's 50 percent interest in Excel Paralubes, and

to freeze Pennzoil's right to obtain additional Group II supply under the contract with ExxonMobil at approximately current levels. If the required divestiture has not occurred within the required time, the companies would be required to transfer Pennzoil's interest in Excel Paralubes to a trustee, who will be responsible for accomplishing the divestiture. As Conoco is the only other party in the Excel Paralubes joint venture and is one of the few other producers of Group II base oil, the order specifically states that Pennzoil's interest may not be divested to Conoco. The proposed order also contains language designed to ensure compliance with its terms. It would terminate 10 years from the date it becomes final.

Finally, the proposed order contains an Order to Hold Separate and Maintain Assets. The purpose of this order is to ensure that all assets to be divested are maintained as viable and competitive pending their sale to a Commission-approved buyer.

The Commission vote to accept the proposed consent order and place a copy on the public record was 5-0. The proposed consent order will be subject to public comment for 30 days, until October 28, 2002, after which the Commission will determine whether to make it final. Comments should be sent to: FTC, Office of the Secretary, 600 Pennsylvania Ave., N.W., Washington, D.C. 20580.

NOTE: A consent agreement is for settlement purposes only and does not constitute an admission of a law violation. When the Commission issues a consent order on a final basis, it carries the force of law with respect to future actions. Each violation of such an order may result in a civil penalty of $11,000.

Copies of the complaint, proposed consent order, and an analysis to aid public comment are available from the FTC's Web site at http://www.ftc.gov and also from the FTC's Consumer Response Center, Room 130, 600 Pennsylvania Avenue, N.W., Washington, D.C. 20580. The FTC's Bureau of Competition seeks to prevent business practices that restrain competition. The Bureau carries out its mission by investigating alleged law violations and, when appropriate, recommending that the Commission take formal enforcement action. To notify the Bureau concerning particular business practices, call or write the Office of Policy and Evaluation, Room 394, Bureau of Competition, Federal Trade Commission, 600 Pennsylvania Ave, N.W., Washington, D.C. 20580, Electronic Mail: antitrust@ftc.gov; Telephone (202) 326-3300. For more information on the laws that the Bureau enforces, the Commission has published "Promoting Competition, Protecting Consumers: A Plain English Guide to Antitrust Laws," which can be accessed at http://www.ftc.gov/bc/compguide/index.htm.

MEDIA CONTACT:

Mitchell J. Katz

Office of Public Affairs

202-326-2180

STAFF CONTACT:

Dennis F. Johnson

Bureau of Competition

202-326-2712

(FTC File No.: 021-0123)

(http://www.ftc.gov/opa/2002/09/shellpennzoil.htm)

ANALYSIS OF PROPOSED CONSENT ORDER
TO AID PUBLIC COMMENT
In the Matter of Shell Oil Company and Pennzoil-Quaker State Company
File No. 021 0123, Docket No. C-4059

I. Introduction

The Federal Trade Commission ("Commission" or "FTC") has issued a complaint ("Complaint") alleging that the proposed merger of Shell Oil Company ("Shell") and Pennzoil-Quaker State Company ("Pennzoil") (collectively "Respondents") would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45, and has entered into an agreement containing consent orders ("Agreement Containing Consent Orders") pursuant to which Respondents agree to be bound by a proposed consent order that requires divestiture of certain assets ("Proposed Consent Order") and a hold separate order that requires Respondents to hold separate and maintain certain assets pending divestiture ("Hold Separate Order"). The Proposed Consent Order remedies the likely anticompetitive effects arising from Respondents' proposed merger, as alleged in the Complaint, and the Hold Separate Order preserves competition pending divestiture.

II. Description of the Parties and the Transaction

Shell Oil Company, headquartered in Houston, Texas, is the United States operating entity for the Royal Dutch/Shell Group of Companies (collectively referred to as "Shell"). Shell is engaged in virtually all aspects of the energy business, including exploration, production, refining, transportation, distribution, and marketing. As part of the relief ordered by the Commission in *Chevron/Texaco*, Docket C-4023 (Jan. 2, 2002), Texaco divested its interest in Equilon Enterprises LLC to Shell and its interest in Motiva Enterprises LLC to Shell and Saudi Refining Company. Equilon and Motiva are engaged in the production, distribution and marketing of refined products, including base oil, gasoline, diesel fuel, and other products. During fiscal year 2001, Shell had worldwide revenues of approximately $135.2 billion and net income of approximately $10.9 billion.

Pennzoil, headquartered in Houston, Texas, is engaged in the business of manufacturing and marketing lubricants, car care products, base oils, branded and unbranded motor oils, transmission fluids, gear lubricants, greases, automotive polishes, automotive chemicals, other automotive products, and specialty industrial products. Pennzoil manufactures and markets conventional and synthetic motor oils primarily under the Pennzoil and Quaker State brands. Pennzoil is also engaged in the franchising, ownership and operation of quick lube oil change centers under the Jiffy Lube name. During fiscal year 2001, Pennzoil had worldwide revenues of approximately $2.3 billion.

Pennzoil has a 50/50 joint venture with Conoco Inc. called Excel Paralubes that operates a base oil refinery located in Westlake, Louisiana, adjacent to Conoco's petroleum products refinery at Lake Charles, Louisiana. Pennzoil obtains a substantial portion of its base oil requirements from its interest in Excel Paralubes. Pennzoil also has a 10-year base oil supply agreement with Exxon Mobil Corporation, which became effective August 1, 2000, as a result of the Commission's order in *Exxon/Mobil*, Docket C-3907 (Jan. 26, 2001). Pursuant to that agreement, Pennzoil is entitled to obtain up to 6,500 barrels per day of base oil from ExxonMobil, in grades and quantities that are proportionate to ExxonMobil's Gulf Coast base oil production. Part of this volume consists of Group II paraffinic base oil, which is the relevant market alleged in the Complaint.

Pursuant to an agreement and plan of merger dated March 25, 2002, Shell intends to acquire all of the outstanding voting securities of Pennzoil. The transaction is structured such that Shell ND, a wholly-owned subsidiary of Shell, will acquire the Pennzoil shares and then be merged into Pennzoil, with Pennzoil surviving as a wholly-owned subsidiary of Shell. Each outstanding common share of Pennzoil will be converted into the right to receive $22 in cash.

III. The Complaint

The Complaint alleges that the merger of Shell and Pennzoil would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45, by substantially lessening competition in the refining and marketing of Group II paraffinic base oil in the United States and Canada. To remedy the alleged anticompetitive effects of the merger, the Proposed Order requires Respondents to divest Pennzoil's 50% interest in Excel Paralubes, which represents Pennzoil's only base oil ownership position. Respondents also have agreed to freeze at approximately current levels Pennzoil's right to obtain Group II base oil supply under the contract with ExxonMobil that was obtained as part of the relief in the *Exxon/Mobil* merger proceeding.

Shell and Pennzoil are competitors in the refining and marketing of Group II paraffinic base oil in a geographic market that consists of the United States and Canada. The refining and marketing of Group II paraffinic base oil in this market would be highly concentrated as a result of the merger. Following the proposed merger, Shell would control at least 39% of Group II refining capacity in the United States and Canada. Overall market concentration, as measured by the Herfindahl-Hirschmann Index (HHI), would increase by more than 700 points to a level in excess of 2,300.

The refining and marketing of Group II paraffinic base oil is a relevant line of commerce (*i.e.*, product market). Paraffinic base oil is a refined petroleum product that is the principal component, or "basestock," of finished lubricants used for a variety of applications, including passenger car motor oil, heavy duty engine oil, automatic transmission fluid, and other lubricant products. In the *Exxon/Mobil* investigation, the Commission concluded that paraffinic base oil constitutes a relevant market.

Developments in the industry since the *Exxon/Mobil* merger indicate that a market consisting of Group II paraffinic base oils has evolved. The American Petroleum Institute divides paraffinic base oil into three groups (Groups I, II and III) based on differences in sulfur content, saturates level, and viscosity index. Group II paraffinic base oil has less than 0.03% sulfur by weight, more than 90% saturates by weight, and a viscosity index ranging from 80 to120. Group II base oil is needed in order to meet current performance standards for lighter-viscosity motor oil formulations (such as 5W-20 and 5W-30), as well as requirements for other lubricants. As new performance standards are adopted, there will be even greater demand for Group II base oil for the production of motor oil and other lubricants. If the price of Group II base oil were to increase by 5-10%, blenders of motor oil and other lubricants would not substitute to other basestocks in sufficient quantities to prevent the increase.

The Complaint alleges that the proposed transaction would lessen competition in a geographic market consisting of the United States and Canada. There is little Group II production outside of the United States and Canada. Further, imports of Group II base oil would be subject to significant freight penalties and would not be competitive with production in the United States and Canada. If the price of Group II base oil in the United States and Canada were to increase by 5-10%, blenders of motor oil and other lubricants would not switch to sources of supply outside the United States and Canada in sufficient quantities to prevent the increase.

There are few significant producers of Group II base oil in the United States and Canada. The proposed merger would eliminate Pennzoil as a major competitor, and would combine Shell, the market leader, into a close partnership with Conoco, another leading producer. As a result of the proposed merger, Shell would control at least 39% of Group II refining capacity in the United States and Canada, and concentration in the relevant market as measured by the Herfindahl-Hirschmann Index would increase by more than 700 points to a level in excess of 2,300.

Entry into the relevant market is difficult and would not be timely, likely or sufficient to prevent the anticompetitive effects that are likely to result from the proposed merger. Constructing a new refinery or converting an existing Group I refinery to make Group II base oil would require substantial investment, would be subject to significant regulatory obstacles, and would take several years to accomplish. As a result, new entry would not be able to prevent a 5-10% increase in Group II base oil prices.

The Complaint charges that the proposed merger, absent relief, is likely to substantially lessen competition and lead to higher prices of Group II paraffinic base oil, by eliminating direct competition between Shell and Pennzoil, by increasing the likelihood that the combined Shell/Pennzoil will unilaterally exercise market power, and by increasing the likelihood of collusion or coordinated interaction among competitors in the refining and marketing of Group II paraffinic base oil.

To remedy the likely competitive harm, the Proposed Order requires Respondents to divest Pennzoil's interest in Excel Paralubes and to freeze Pennzoil's ability to obtain additional Group II

supply under the agreement with ExxonMobil. This relief will effectively remedy any anticompetitive effects that could be expected to arise from this transaction.

IV. Resolution of the Competitive Concerns

The Commission has provisionally entered into an Agreement Containing Consent Orders with Shell and Pennzoil in settlement of the Complaint. The Agreement Containing Consent Orders contemplates that the Commission would issue the Complaint and enter the Proposed Order and the Hold Separate Order for the divestiture of certain assets described below.

In order to remedy the anticompetitive effects that have been identified, Respondents have agreed to divest Pennzoil's 50% interest in Excel Paralubes, and to freeze Pennzoil's right to obtain additional Group II supply under the contract with ExxonMobil at approximately current levels. If the required divestiture has not been accomplished within the required time, then Respondents are required to transfer Pennzoil's interest in Excel Paralubes to a trustee, who will have the responsibility of accomplishing the required divestiture.

Paragraph II.A. of the Proposed Order requires Respondents to divest Pennzoil's interest in Excel Paralubes, at no minimum price, within twelve months after executing the Order, to an acquirer that receives the prior approval of the Commission.

Paragraph II.B. requires Respondents to negotiate with the acquirer, at the acquirer's option, a supply agreement for Respondents to purchase Group II base oil. Such agreement may not exceed one year, may not contain renewal or evergreen rights, and is subject to prior approval by the Commission. Paragraph II.C. provides that, prior to the effective date of divestiture, Respondents may not enter into any agreement to purchase Group II base oil from the acquirer other than one made pursuant to Paragraph II.B.

Paragraph II.D. of the Proposed Order explicitly provides that Respondents may not divest the Pennzoil Excel Paralubes Interest to Conoco, and must enforce a letter agreement with Conoco relating to Excel Paralubes. Conoco already has a significant share of the Group II market, and the addition of Pennzoil's share of Excel Paralubes would result in a significant increase in concentration. In addition, under the Joint Venture Agreement forming the Excel Paralubes partnership, Conoco may, under certain circumstances, have a right of first refusal or a first option to purchase Pennzoil's interest in Excel Paralubes. Conoco has entered into an agreement with Respondents dealing with its waiver of such rights, and consenting to the assignment of a supply agreement pursuant to which Pennzoil purchases base oil from Excel Paralubes.

Paragraph III limits Respondents' use of their rights to purchase Group II base oil from ExxonMobil under the ExxonMobil/Pennzoil Base Oil Agreement. That agreement allows Pennzoil to obtain base oil from ExxonMobil in the proportionate types and amounts corresponding to

production at designated ExxonMobil refineries. Pennzoil currently is taking approximately 1,500 barrels per day of Group II under this contract. Any significant increase in that amount could unduly increase concentration. Accordingly, Paragraph III prevents Respondents from increasing their share of the market for Group II Base Oil through additional supply under this agreement.

If Respondents have not accomplished the divestiture within the required time period, Paragraph IV provides that the Commission may appoint a trustee to divest the Pennzoil Excel Paralubes Interest, at no minimum price, to a buyer approved by the Commission. The trustee will have the exclusive power and authority to accomplish the divestiture within twelve months, subject to any necessary extensions by the Commission. Paragraph IV.C.5 requires that the trustee will have access to information related to Atlas and Excel Paralubes as necessary to fulfill his or her obligations. (Atlas is the wholly-owned subsidiary of Pennzoil that holds Pennzoil's interest in the Excel Paralubes partnership.) The trustee shall use his or her best efforts to negotiate the most favorable price and terms for the divestiture, subject to the Respondents' absolute and unconditional obligation to divest expeditiously at no minimum price. If the trustee receives more than one bona fide offer from entities approved by the Commission, the trustee will divest to the party selected by the Respondents.

Other provisions of Paragraph IV.C. generally provide that Respondents are responsible for management expenses incurred by the trustee, that the trustee has authority to employ other persons necessary to carry out his or her duties and responsibilities, and that Respondents indemnify and hold the trustee harmless against any liabilities or expenses arising out of, or in connection with, performance of the trustee's duties. Respondents may require the trustee to sign a customary confidentiality agreement, provided that such agreement may not restrict the trustee from providing any information to the Commission.

Paragraphs V - VIII of the Proposed Order contain certain general provisions. Pursuant to Paragraph V, Respondents are required to provide the Commission with a report of compliance with the Proposed Order every thirty days until the divestiture is completed and annually for nine years after the first year the Order becomes final. Paragraph VI provides for notification to the Commission in the event of any corporate changes in the Respondents. Paragraph VII requires that Respondents provide the Commission with access to their facilities and employees for the purposes of determining or securing compliance with the Proposed Order. Finally, Paragraph VIII terminates the Order ten years from the date it becomes final.

V. Opportunity for Public Comment

The Proposed Order has been placed on the public record for thirty (30) days for receipt of comments by interested persons. The Commission, pursuant to a change in its Rules of Practice, has also issued its Complaint in this matter, as well as the Hold Separate Order. Comments received during this thirty day comment period will become part of the public record. After thirty (30) days, the Commission will again review the Proposed Order and the comments received and will decide whether it should withdraw from the Proposed Order or make final the agreement's Proposed Order.

By accepting the Proposed Order subject to final approval, the Commission anticipates that the competitive problems alleged in the Complaint will be resolved. The purpose of this analysis is to invite public comment on the Proposed Order, including the proposed divestiture, and to aid the Commission in its determination of whether it should make final the Proposed Order contained in the agreement. This analysis is not intended to constitute an official interpretation of the Proposed Order, nor is it intended to modify the terms of the Proposed Order in any way.

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BERNARD SANDERS, VERMONT,
INDEPENDENT

July 13, 2004

VIA FACSIMILE
Mr. Jim Wells
Director, Natural Resources and Environment
Government Accountability Office
441 G Street, N.W.
Washington, DC 20548

Dear Mr. Wells:

This letter follows up on the July 7, 2004 hearing of the Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, entitled "Driving Down the Cost of Filling Up." Please respond to the enclosed followup questions for the record.

Please hand-deliver the agency's response to the Subcommittee majority staff in B-377 and the minority staff in B-350A Rayburn House Office Building not later than July 28, 2004. If you have any questions about this request please call Subcommittee Staff Director Barbara Kahlow on 226-3058.

Sincerely,

Doug Ose
Chairman
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs

Enclosure

cc The Honorable Tom Davis
The Honorable John Tierney

Q1. As discussed during the hearing, the econometric analysis of Government Accountability Office's (GAO's) May 2004 report entitled, "Energy Markets: Effects of Mergers and Market Concentration in the U.S. Petroleum Industry" (GAO-04-96), is premised on the notion that "gasoline is mostly fungible, especially in the eastern part of the United States" (p. 115).

c. What specific evidence supports this assertion of fungibility?

d. The Environmental Protection Agency (EPA) testified that, because of fuel requirements, gasoline from one area of a State may be prohibited for use in another area of the same State or in other States. In other words, gasoline is not fungible. What implications does this have for GAO's assumption of fungibility?

Q2. During the hearing, you stated, "The retail sector is much more complex in terms of the factors that can influence gasoline prices. So, we thought a good proxy is to look at the wholesale level, which deals with the actual prices paid as the gasoline is moved from the refinery into the market." If your statement is accurate, and that retail factors are influenced by a myriad of factors, would increases in wholesale prices necessarily translate into increases at the gas pumps?

Q3. At the hearing, both GAO and the Federal Trade Commission (FTC) agreed to work more closely with one another to resolve their differences over GAO's recent report.

a. Have GAO and FTC set a date and time for the joint conference that was proposed? If so, what is the agreed upon date?

b. Will GAO release its petroleum industry data so that the FTC and other experts can authenticate GAO's results? If not, why not?

Rec: 7/29

ANSWERS TO ADDITIONAL QUESTIONS SUBMITTED FOR THE RECORD
(INSERT FOR PAGE 85)

Q1.
As discussed during the hearing, the econometric analysis of Government Accountability Office's (GAO's) May 2004 report entitled, "Energy Markets: Effects of Mergers and Market Concentration in the U.S. Petroleum Industry" (GAO-04-96), is premised on the notion that "gasoline is mostly fungible, especially in the eastern part of the United States" (p. 115)

a. [c] What specific evidence supports this assertion of fungibility?

GAO's response:

In our report (p. 115), we stated that, "Although the data for [REFINERY] UTILIZATION RATES are available only at the national level and do not allow us to account for differences in utilization rates across the United States, the data are still useful because gasoline is mostly fungible, especially in the eastern part of the United States." While it is true that some gasoline is not 100 percent fungible, we indicated that gasoline is fungible or interchangeable in the sense that gasoline sold in certain regions are sometimes refined and moved in from other regions. Our statement is based primarily on the movements of gasoline across Petroleum Administration for Defense Districts (PADDs).[1] As shown in table 1, as an illustration, there were movements of gasoline (by pipeline, tanker, and barge) across PADDs, especially in the eastern part of the country (PADDs I, II, and III).

[1] Historically, the domestic petroleum market has been divided into five regions: the East Coast region (PADD I), the Midwest region (PADD II), the Gulf Coast region (PADD III), the Rocky Mountain region (PADD IV), and the West Coast region (PADD V).

Table 1: Movement of Gasoline between PADDs (2000)

From	To	Movements (thousand barrels)	Percentage of movements to	
			Eastern region	Western region
Eastern region			96%	4%
PADD I	PADD II	73,573		
	PADD III	246		
PADD II	PADD I	8,829		
	PADD III	16,321		
	PADD IV	15,277		
PADD III	PADD I	642,316		
	PADD II	139,817		
	PADD IV	3,420		
	PADD V	21,642		
Western region			42%	58%
PADD IV	PADD II	6,279		
	PADD V	19,298		
PADD V	PADD I	295		
	PADD III	61		

Source: EIA (Petroleum Supply Annual 2000, Volume 1, March 2001, Table 32), and GAO's analysis

b. [d] The Environmental Protection Agency (EPA) testified that, because of fuel requirements, gasoline from one area of a State may be prohibited for use in another area of the same State or in other States. In other words, gasoline is not fungible. What implications does this have for GAO's assumption of fungibility?

GAO's response:

We indicated in our report that, the requirements for "boutique fuels" (or proliferation of fuels) generally limit the fungibility of gasoline (see p. 79). In fact, to account for the decreased fungibility of gasoline due to the proliferation of fuels, we performed our analysis for three sub-types of gasoline formulations—conventional, reformulated, and CARB. Our analysis of gasoline formulations in the report—in terms of the sub-types of gasoline formulations and the areas of the country modeled—is generally consistent with the EIA's map depicting areas where reformulated gasoline is used. (See figure 1.)[2]

[2] http://www.eia.doe.gov/oil_gas/petroleum/data_publications/wrgp/reformulated_map.html

Map of Reformulated Gasoline

EIA Home > Petroleum > Weekly Retail Gasoline Prices > Map of Reformulated Gasoline

Reformulated Gasoline

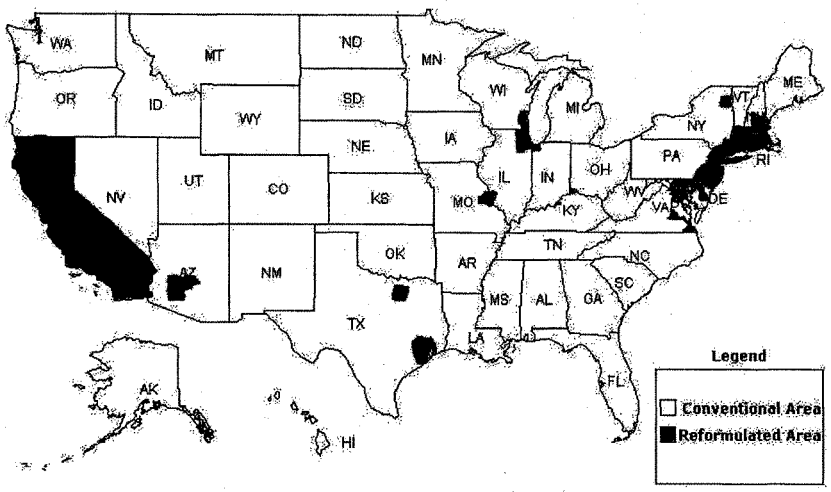

FIGURE 1

Q2.

During the hearing, you stated, "The retail sector is much more complex in terms of the factors that can influence gasoline prices. So, we thought a good proxy is to look at the wholesale level, which deals with the actual prices paid as the gasoline is moved from the refinery into the market." If your statement is accurate, and that retail factors are influenced by a myriad of factors, would increases in wholesale prices necessarily translate into increases at the gas pumps?

GAO's response:

There is evidence that increases in wholesale prices are generally, but not necessarily, passed through to retail prices. In particular, EIA has found that the relationships between spot (wholesale) prices of gasoline and retail prices are consistent and predictable, to such an extent that changes in wholesale prices can be used to forecast subsequent changes in retail prices for the appropriate regions.[3] Another study by an economist at the Department of Labor (Bureau of Labor Statistics), found that changes in retail gasoline prices are positively related to changes in the wholesale prices for gasoline.[4]

Q3.

At the hearing both GAO and the Federal Trade Commission (FTC agreed to work more closely with one another to resolve their differences over GAO's recent report.

a. Have GAO and FTC set a date and time for the joint conference that was proposed. If so, what is the agreed upon date?

---

[3] See *Gasoline Price Pass-Through*, by Michael Burdette and John Zyren, EIA, January 2003, at http://www.eia.doe.gov/pub/oil_gas/petroleum/feature_articles/2003/gasolinepass/gasolinepass.htm. This finding applied also to the diesel fuel market; see *Diesel Fuel Price Pass-Through*, by Michael Burdette and John Zyren, EIA, undated, at http://www.eia.doe.gov/pub/oil_gas/petroleum/feature_articles/2002/diesel/diesel.html

[4] See *Consumer Gasoline Prices: An Empirical Investigation*, by Jonathan Weinhagen, Monthly Labor Review (July 2003).

GAO's response:

As communicated in a letter we sent to the FTC on July 28, 2004, GAO welcomes opportunities to discuss our methodologies and assumptions and will work with FTC to discuss how we can appropriately contribute to FTC's analytical approaches. However, many details need to be worked out to our satisfaction regarding the proposed scope, balance, content, and attendees of such a conference before a date could be set and we would agree to participate. We share a mutual goal to advance the methodologies for retrospective analysis of mergers impacts on gasoline prices and are willing to explore alternative ways to consult constructively with FTC.

b. Will GAO release its petroleum industry data so that the FTC and other experts can authenticate GAO's results? If not, why not?

GAO's response:

The data we used were partly purchased from private vendors and partly acquired from federal agencies. We will be willing to make our data available to FTC subject to any possible contractual restrictions regarding the data we purchased from private vendors.

TOM DAVIS, VIRGINIA,
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BERNARD SANDERS, VERMONT,
INDEPENDENT

July 13, 2004

VIA FACSIMILE
Mr. Bob Slaughter
President
National Petrochemical &
Refiners Association
1899 L Street, N.W.
Washington, DC 20036

Dear Mr. Slaughter:

Thank you for participating in the Subcommittee's hearing entitled "Driving Down the Cost of Filling Up." Your testimony was both insightful and informative. I appreciate the time and effort that went into its preparation and presentation. I was encouraged by the frank and instructive dialogue on problems facing U.S. gasoline markets.

As discussed during the hearing, please respond to the following question for the record:

> As part of its testimony, the National Petrochemical and Refiners Association and the American Petroleum Institute included a graphic entitled, "What We Pay For in a Gallon of Gasoline," which indicates that refining costs constituted 31 percent of the price of a gallon of gasoline in May 2004.
>
> a. Of the 31 percent, how much is refiner profit and how much is refiner cost?
>
> b. Does the percentage attributed to refining change from month to month or year to year? If so, what is the average percentage attributed to refining?

Please hand-deliver your response to the Subcommittee majority staff in B-377 and the minority staff in B-350A Rayburn House Office Building not later than July 28, 2004. If you have any questions about this request, please call Subcommittee Staff Director Barbara Kahlow on 226-3058.

Sincerely,

Doug Ose
Chairman
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs

cc The Honorable Tom Davis
The Honorable John Tierney

Bob Slaughter
President

NPRA

National Petrochemical & Refiners Association

1899 L Street, NW
Suite 1000
Washington, DC
20036.3896

202.457.0480 voice
202.457.0486 fax
www.npra.org

Questions and Answers for the Hearing Record
House Government Reform Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs
The Volatility of Gasoline Markets
July 7, 2004

As part of their testimony, the National Petrochemical & Refiners Association and the American Petroleum Institute included a graphic entitled, "What We Pay For In A Gallon of Gasoline, "which indicates that refining costs constituted 31 percent of the price of a gallon of gasoline in May 2004.

a. Of the 31 percent, how much is refiner profit and how much is refiner cost?

Answer: The graphic, "What We Pay For In A Gallon of Gasoline," was developed by EIA. As we understand EIA's data collection and reporting process, the refining percent is derived by subtracting crude oil costs from spot gasoline prices. Therefore, this is an average price differential for gasoline, not for all petroleum products. This estimate in EIA's gasoline pump graphic labeled as "refiner costs and profits" is very sensitive to the gasoline supply/demand balance, which has a strong seasonal component. Thus, it tends to be higher in the summer, just as similar spreads for heating oil and diesel fuel tend to be higher in the winter. Other factors affecting the spread, and not under the control of domestic refiners, include demand and the availability of imports.

As NPRA stated in its written and oral statements before the Subcommittee, according to data compiled by EIA (Performance Profiles of Major Energy Producers), the ten-year average return on investment in the industry is about 5.5%; this is about what investors could receive by investing in government bonds, with little or no risk. It is also less than half of the S& P Industrials figure of a 12.7% return. In 2002, the return was a negative 2.7% for refining, compared to a positive 6.6% for the S & P Industrials. This relatively low level of refiners' return, which incorporates the cost of capital expenditures required to meet environmental regulations, is another reason why domestic refinery capacity additions have been modest and a reason why new refineries are less likely to be constructed here in the U.S.

Refining industry profits as a percentage of operating capital are small. In dollars, they seem large due to the massive scale needed to compete in the world's largest industry. A new medium-scale refinery (100,000 to 200,000 barrels/day of crude oil processing capacity) would cost $2 to $3 billion. And, over the last decade, companies spent about $5 billion per year on environmental compliance with refinery and fuels regulations. While significantly

improving air quality, these investments also help explain the low percentage return on refinery investment In short, our revenues can be in the billions, but so, too, are our costs of operations.

b. Does the percentage attributed to refining change from month to month or year to year? If so, what is the average percentage attributed to refining?

Answer: Yes, the percentage attributed to refining changes from month to month. On its website, EIA has posted historical data for "What We Pay For In A Gallon of Gasoline," beginning in January 2000 and ending with the most current month of May 2004. There is a wide variability in the refining percentages from month to month. The data may be found on EIA's website at http://tonto.eia.doe.gov/oog/info/gdu/gaspump.html

As noted above, there is a seasonal component. Other factors include the level of demand and the availability of imports. Another factor are price lags. The relative shares of "refiner costs and profits" (spot product less crude oil) and "distribution and marketing costs and profits" (retail product less spot product) vary as price levels rise and fall because of the lag in the pass-through of price changes from the wholesale to retail level. As prices rise, spot prices increase faster than retail, expanding the "refiner" share and compressing the "distribution and marketing" portion. As prices decline, the opposite effect occurs, and the impact tends to even out over time.

Since crude oil and gasoline prices, which are used by EIA to estimate refining costs, fluctuate so much from month to month, it is better to look at an average over a longer period of time. Based on the EIA data from January 2000 to May 2004, the average share for refining was 15.4 percent, the average crude share was 42.9 percent, the average tax share was 28.8 percent, and the average distribution share was 12.9 percent. For the same period, the average gasoline cost was $1.48 per gallon.

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BERNIARD SANDERS, VERMONT,
INDEPENDENT

July 13, 2004

VIA FACSIMILE
Mr. Michael Ports
President
Ports Petroleum Company, Inc.
P.O. Box 1046
Wooster, OH 44691-7046

Dear Mr. Ports:

Thank you for participating in the Subcommittee's hearing entitled "Driving Down the Cost of Filling Up." Your testimony was both insightful and informative. I appreciate the time and effort that went into its preparation and presentation. I was encouraged by the frank and instructive dialogue on problems facing U.S. gasoline markets.

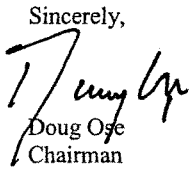
As discussed during the hearing, please respond to the following question for the record:

> As part of its testimony, the National Petrochemical and Refiners Association and the American Petroleum Institute included a graphic entitled, "What We Pay For in a Gallon of Gasoline," which indicates that distribution and marketing costs constituted 8 percent of the price of a gallon of gasoline in May 2004.
>
> a. Of the 8 percent, how much is profit and how much is cost?
>
> b. Does the percentage attributed to distribution and marketing change from month to month or year to year? If so, what is the average percentage attributed to refining?

Please hand-deliver your response to the Subcommittee majority staff in B-377 and the minority staff in B-350A Rayburn House Office Building not later than July 28,

2004. If you have any questions about this request, please call Subcommittee Staff Director Barbara Kahlow on 226-3058.

Sincerely,



Doug Ose
Chairman
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs

cc The Honorable Tom Davis
The Honorable John Tierney

INDEPENDENT LUBRICANT MANUFACTURERS ASSOCIATION

President
Paul P. Converso
Battenfeld Grease & Oil Corporation of N.Y.

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Celeste M. Powers, CAE

General Counsel
Jeffrey L. Leiter

July 6, 2004

Hon. Doug Ose
Chairman
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs
Committee on Government Reform
B-377 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Ose:

The Independent Lubricant Manufacturers Association ("ILMA") requests that the enclosed letter from the Association to Department of Energy Spencer Abraham be included in the record of the Subcommittee's July 7, 2004 hearing, "Driving Down the Cost of Filling Up." ILMA assumes that Secretary Abraham's recent request for a refinery capacity study by the National Petroleum Council ("NPC") will be discussed at the hearing. While we understand that the primary focus of the hearing and the requested NPC study are the factors affecting the supply and price of gasoline, there is a healthy debate in our industry over the supply and demand balance for lubricants, which are essential to the operation of the U.S. economy. ILMA would hope that the Subcommittee would reinforce the Association's request to Secretary Abraham.

Please do not hesitate to have your staff contact either me (703-684-5574) or ILMA's counsel, Jeffrey Leiter (703-752-1080), if you or Members of the Subcommittee have any questions concerning the Association's correspondence.

Sincerely,

Celeste M. Powers, CAE
Executive Director

651 S. Washington Street
Alexandria, VA 22314
phone: 703/684-5574
fax: 703/836-8503
email: ilma@ilma.org
web: www.ilma.org

Enclosure

cc: Jeffrey L. Leiter, Esq.

INDEPENDENT LUBRICANT MANUFACTURERS ASSOCIATION

President
Paul P. Converso
Battenfeld Grease & Oil Corporation of N.Y.

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Greg T. Julian
Advanced Lubrication Specialties

Immediate Past President
Gregory J. Foltz
Milacron Marketing Company

Executive Director
Celeste M. Powers, CAE

General Counsel
Jeffrey L. Leiter

June 28, 2004

Honorable Spencer Abraham
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Secretary Abraham:

The Independent Lubricant Manufacturers Association ("ILMA") supports your request last week to the National Petroleum Council ("NPC") that it undertake a study of U.S. refining capacity, including the identification of the nation's future demand for "refinery products." For the reasons set forth below, the Association would like the Department of Energy ("DOE") to ensure that the NPC study includes lubricants and lubricant base oils.

Introduction of ILMA

ILMA, established in 1948, is a national trade association of 142 manufacturing member companies, consisting largely of small businesses, ranging in size from fewer than 10 to more than 200 employees. As a group, ILMA member companies blend, compound and sell over 25 percent of the United States' lubricant needs and over 75 percent of the metal removal fluids utilized in the country.

ILMA members are diverse. A large proportion of our membership manufactures automotive lubricants for original equipment manufacturers and for the retail market, either under their own labels or through contract packaging arrangements. Many produce lubricants for metalworking and heavy industrial machines, while others supply lubricants for mining, textiles, food processing, electronics, as well as many other industries. Clearly, lubricants are vital to the daily operation of the U.S. economy.

Independent lubricant manufacturers by definition are neither owned nor controlled by companies that explore for or refine crude oil to produce lubricant base stocks. Base oils are purchased from refiners, who are also competitors in the sale of finished products. Independent lubricant manufacturers succeed by manufacturing and marketing high-quality, often specialized, lubricants. Their success in this competitive market also is directly attributable to their tradition of providing excellent, individualized service to their customers.

651 S. Washington Street
Alexandria, VA 22314
phone: 703/684-5574
fax: 703/836-8503
email: ilma@ilma.org
web: www.ilma.org

Base Oil Supplies

For the better part of the past year, there has been a vigorous debate in the lubricants industry over future supplies of lubricant base oils. Much of this debate has been driven by new, more stringent requirements for automotive engine oils (*i.e.,* GF-4), the upcoming General Motors Dexron III H specification (*i.e.,* automatic transmission fluids), and revisions to heavy-duty engine oil specifications (*i.e.,* PC-10) that currently are under development. These more stringent lubricant requirements have accelerated a market shift to higher-quality, more expensive lubricant base oils (*i.e.,* API Groups II, II+ and III).

As part of the development of the GF-4 automotive engine oil specification by the International Lubricant Standardization and Approval Committee ("ILSAC"), ILMA expressed concerns late last year for the potential for insufficient supplies of Group II base oils to meet near-term demand. In response to ILMA's concerns, ILSAC commissioned an analysis, "Future Supply of and Demand for API Group II Basestock," by Kline & Company ("Kline"). Kline's assessment of the lubricant base oil supply and demand balance through 2010 was that supply would exceed demand, "but not by much," if its assumptions were correct.

Petrotrends International, Inc. ("PTI") published an article in the December 2003 issue of *Lubes'N'Greases* Magazine, summarizing a then recently-completed, comprehensive study of the North American lubricants base oils market. PTI concluded that by 2007 there will be a short supply of domestic API Group II base oils, whereas, API Group II+ supplies will be "tight."

Since the Kline and PTI forecasts on lubricant base oil supply and demand balances were released at the end of 2003, ILMA has published articles in its monthly magazine, Compoundings, and its weekly, online newsletter, *FlashPoint*, on base oil supply issues. Further, the Association's Board of Directors and Executive Committee have received two oil company supply/demand forecast presentations this year.

More recently, CITGO Chief Operating Officer Jerry Thompson presented a more pessimistic forecast for lubricant base oil supplies at the 6th Annual OPIS Gasoline Marketing Conference in Orlando, Florida. After discussing a variety of topics, including energy and gasoline demand and refining capacity, Mr. Thompson warned attendees about the future outlook of lubricants and lubricant base oil refineries. Mr. Thompson predicted that the balance of the worldwide forecast for paraffinic base oils would decrease significantly over the next eight years. He outlined that, under the "most likely scenario," the current U.S. surplus balance of 12 thousand barrels per day (MBD) would decrease to 4 MBD by 2008, and in 2012, the U.S. surplus would become a deficit of –6 MBD.

While ILMA can appreciate that your primary focus in requesting the NPC study is gasoline supply and demand, lubricants and lubricant base oils are critical to the U.S. economy, especially the manufacturing and transportation sectors, and our national defense. Thus, while lubricants and lubricant base oils do not draw media attention like $2.00 per gallon gasoline, these products are part of the worldwide petroleum market and are subject to complex variables worldwide that will increasingly affect supply and demand conditions here in the U.S.

As part of your request that the NPC study American refinery capacity, you asked the federal advisory committee to "identify the nation's future demand for refinery products…." Based upon our discussion above about the changing markets for lubricants and lubricant base oils, as well as their importance the U.S. economy, these products should be included in the NPC's analysis. Accordingly, ILMA requests that you communicate to the NPC that lubricants and lubricant base oils be included in your reference to "refinery products."

Industry, policy makers and the public all need accurate and up-to-date information. Hopefully, the inclusion of lubricants and lubricant base oils in the NPC study will provide such needed information.

* * * *

We appreciate your consideration of ILMA's request.

Sincerely,

Paul P. Converso
President

cc: National Petroleum Council
ILMA Board of Directors
Jeffrey L. Leiter, Esq.

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