

# GASOLINE SUPPLY—ANOTHER ENERGY CRISIS?

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## HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY POLICY, NATURAL  
RESOURCES AND REGULATORY AFFAIRS

OF THE

COMMITTEE ON  
GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

JUNE 14, 2001

**Serial No. 107-55**

Printed for the use of the Committee on Government Reform



Available via the World Wide Web: <http://www.gpo.gov/congress/house>  
<http://www.house.gov/reform>

U.S. GOVERNMENT PRINTING OFFICE

77-984 PDF

WASHINGTON : 2001

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## **GASOLINE SUPPLY—ANOTHER ENERGY CRISIS?**

**THURSDAY, JUNE 14, 2001**

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 10 a.m., in room 2154, Rayburn House Office Building, Hon. Doug Ose (chairman of the subcommittee) presiding.

Members present: Representatives Ose, Waxman, Otter, LaTourette, Cannon, Tierney, Mink, and Kucinich.

Staff present: Dan Skopec, staff director; Barbara Kahlow, deputy staff director; Jonathan Tolman, professional staff member; Regina McAllister, clerk; Michelle Ash, Greg Dotson, Elizabeth Mundinger, and Alexandra Teitz, minority counsels; Andrei Greenawalt, minority special assistant; and Kate Harrington, minority staff assistant.

Mr. OSE. Good morning. We welcome everybody to the committee hearing. Today we are going to take a look at gasoline prices. Joining us is Mr. Cannon of Utah. I presume Mr. Tierney will be here soon.

We will start with opening statements, then proceed to the witnesses for theirs.

But, first of all, let me welcome everyone. We appreciate your taking the time to come and visit, particularly our witnesses. I'm sure the information you provide will be very helpful.

The best known price in America is of gasoline, there isn't any doubt. Americans see it posted along the road dozens of times every day, they pull in to fill up at least once a week, if not two or three times. Filling up with gas today is an expensive proposition.

Last Monday, the average price for regular gasoline nationwide was \$1.65 a gallon. In California, it was even higher, \$1.95, with some cities seeing prices over \$2. For working Americans filling up their gas tank is not a luxury, it is a necessity. They have to go to work, they have to take the kids to school, they have to go to the grocery store, they have to go to the doctor or they have to go to the emergency room. Like it or not, gasoline is the energy that literally fuels our everyday life.

When prices skyrocket, as they have in the past few weeks, it has a dramatic effect not only on the economy but also on the pocketbooks of everyday families, particularly those on low or fixed incomes. Unfortunately, this is not the first year that gasoline prices

have suddenly escalated in the spring. Two years ago, the price of gas jumped dramatically on the West Coast. Last spring, the price of gasoline skyrocketed in the Midwest, and this year, prices have done the same.

This sequence of events, the repetitive pattern, begs the question, if nothing changes, what is going to happen next year? It seems that the events of the last 2 years have been a series of warnings that there is something wrong with the gasoline market. But it is not just the recent price increases that suggest there is a problem. Even though demand for gasoline has risen nearly every year since 1982, refining capacity has actually declined more than 10 percent since that time. Today, refineries nationwide are operating at over 97 percent of capacity, essentially full tilt.

Even when operating at such a high rate, refineries are barely keeping up with demand. At such a high utilization rate, there is virtually no room for error. Any accident or error can cause a supply disruption, with dramatic consequences for the price of gasoline. This is a problem of particular concern for California. The prospect of rolling blackouts across the State creates the specter of another energy crisis, this time in gasoline.

If the lack of power to refineries significantly disrupts supply, some analysts have predicted the price of gasoline could go to \$3 a gallon. That benefits no one.

With eminent blackouts and high natural gas prices, the California economy can ill afford a third crisis in gasoline prices. The effect would be devastating, not only in generic economic terms of a recession, but also in personal terms, affecting Mr. Waxman's district, my district, every single district of every single member from California, with job loss and financial hardship.

A gasoline crisis due to refinery blackouts is avoidable. On May 3rd of this year, Chairman Dan Burton, Mr. Steve Horn and I sent a letter to California Governor Gray Davis, urging him to place refineries on the list of facilities exempt from having their power cut-off. Blackouts at refineries can and should be avoided. There is no reason to substitute a shortage of gasoline for a shortage of electricity.

One reason that California is so sensitive to supply disruptions is a function of its special requirements for clean burning gasoline. California's own special blend of gasoline, although good for the environment, means that California must produce virtually all of its gasoline inside the State. When there's a supply shortage, refiners in the rest of the country can't simply ship more gasoline to California.

And although California may be the largest example of this problem, it is by no means alone. Twenty years ago, the Nation was essentially one single market for gasoline. It was a commodity, if you will. Today, the Nation has been balkanized into dozens of tiny boutique markets with their own specialized blends of gasoline. In Chicago, there's a unique blend of gasoline. In Mr. Cannon's home State of Utah, there are two special blends in addition to the conventional blend of gasoline.

The principal question that concerns me about these boutique islands is not whether these special blends are more or less expensive to produce than conventional gasoline, but do they make the

entire market less stable. Does this overlay of regulatory barriers on top of the current supply problems make the market susceptible to recurrent spikes?

Beyond this balkanization of the gasoline market is the overarching regulation of gasoline under the Clean Air Act, particularly the oxygenate mandate added by Congress in 1990. On Tuesday, the EPA declined to grant California a waiver from the oxygenate requirement. This waiver is critical to California's continued commitment to protect water quality and reduce skyrocketing gasoline prices. This ruling is a setback to our continued efforts to help Californians acquire clean, affordable gasoline. I will continue to work with the administration and our State government to seek alternative ways to implement this waiver.

I think the fact that California cannot get a waiver from the EPA administrator to protect its water shows a fundamental problem with the way our Nation's environmental laws are structured. Fundamentally, I'm disturbed that the Federal Government seems to be in the business of micromanaging what goes into California's gasoline and everyone else's, for that matter, too.

Hopefully the witnesses today can enlighten us on these issues facing the gasoline market and possibly point toward some productive solutions. I do look forward to your testimony.

Now I want to recognize Mr. Tierney for 5 minutes for an opening statement.

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

**Chairman Doug Ose  
Opening Statement  
Gasoline Supply: Another Energy Crisis?  
June 14, 2001**

The best known price in America is that of gasoline. Americans see it posted along the road a dozen times a day. They pull in to fill up every week, if not more often. And, filling up the gas tank at today's prices is an expensive proposition.

Last Monday, the average price of regular gasoline nationwide was \$1.65. In my home State of California, it was even higher -- \$1.95, with some cities seeing prices over \$2.00.

For working Americans filling up their gas tank is not a luxury -- it is a necessity. They have to fill up to get to work, take the kids to school, and go to the grocery store, the doctor or the emergency room. Like it or not, gasoline is the energy that literally fuels every day life. And, when prices skyrocket it has a dramatic affect not only on the economy but also on the pocketbooks of everyday families, particularly those on low or fixed incomes.

This, however, is not the first year that gasoline prices have suddenly escalated in the spring. Two years ago, the price of gasoline jumped dramatically on the West Coast. Last spring, the price of gasoline skyrocketed in the Midwest. And, this year, prices have jumped nationwide. The sequence of events begs the question, if nothing changes, what is going to happen next year?

It seems that the events of the last two years have been a series of warnings that there is something wrong with the gasoline market.

But, it is not just recent price increases that suggest that there is a problem.

Even though demand for gasoline has risen nearly every year since 1982, refining capacity since then has actually declined more than 10 percent.

Today, refineries nationwide are operating at 97.1 percent capacity -- full tilt. But, even operating at such a high rate, refineries are barely keeping pace with demand.

At such a high utilization rate, there is virtually no room for error. Any accident or error can cause a supply disruption with dramatic consequences for the price of gasoline. This is a problem of particular concern for California. The prospect of rolling blackouts across the State creates the specter of another energy crisis. If the lack of power to a refinery significantly disrupts supply, some analysts have predicted the price of gasoline could skyrocket to \$3.00 a gallon. A price of \$3.00 per gallon for gas benefits no one.

With eminent blackouts and high natural gas prices, the California economy can ill afford a third crisis in astronomical gasoline prices. The effect would be devastating, not only in the generic economic terms of a recession but also in personal terms of the job loss and financial hardship that it would inflict on working families.

A gasoline crisis due to refinery blackouts is completely avoidable. On May 3rd, Chairman Burton, Mr. Horn and I sent a letter to California Governor Gray Davis, urging him to place refineries on the list of facilities exempt from having their power cutoff. Such blackouts at refineries could and should be avoided.

One reason that California is so sensitive to such supply disruptions is a function of its special requirements for clean burning gasoline. California's own special blend of gasoline, although good for the environment, means that California must produce virtually all of its gasoline in the State. When there is a supply shortage, refiners in the rest of the country can't simply ship more gasoline to California.

Although California may be the largest example of this problem, it is by no means alone. Twenty years ago, the nation was essentially one single market for gasoline. Today, the nation has been balkanized into dozens of tiny boutique markets with their own specialized blends of gasoline. For example, the city of Chicago has its own unique blend of gasoline and Mr. Cannon's home state of Utah has two special blends in addition to conventional gasoline.

The principal question that concerns me about these boutique islands is not whether these special blends are more or less expensive to produce than conventional gasoline, but do they make the entire market less stable? Does this overlay of regulatory barriers on top of the current supply problems make the market susceptible to recurrent spikes?

Beyond this balkanization of the gasoline market is the overarching regulation of gasoline under the Clean Air Act, particularly the oxygenate mandate added by Congress in 1990. On Tuesday the Environmental Protection Agency (EPA) declined to grant California a waiver from the oxygenate requirement. The waiver is critical to California's continued commitment to protect water quality and reduce skyrocketing gasoline prices. This EPA ruling is a setback to our continued efforts to help Californians acquire clean, affordable gasoline. However, I will continue to work with the Administration and our State government to seek alternative ways to implement this waiver.

I think the fact that California cannot get a waiver from the EPA Administrator to protect its water shows a fundamental problem with the way our nation's environmental laws are structured. Fundamentally, I am disturbed that the Federal government seems to be in the business of micromanaging what goes into California's gasoline, and everyone else's for that matter.

Hopefully, the witnesses today can enlighten us on these issues facing the gasoline market and possibly point toward some productive solutions. I look forward to their testimony.

Panel one includes John Cook, Director Petroleum Division, Energy Information Administration, Department of Energy and Robert D. Brenner, Acting Assistant Administrator, Office of Air and Radiation, U.S. Environmental Protection Agency.

Panel Two includes, Don L. Coursey, Ameritech Professor of Public Policy Studies, University of Chicago; Robert Slaughter, General Counsel, National Petrochemical and Refiners Association; Ben Lieberman, Senior Policy Analyst, Competitive Enterprise Institute; and A. Blakeman Early, Environmental Consultant, American Lung Association.

Mr. TIERNEY. Thank you, Mr. Chairman.

I'm going to yield to Mr. Waxman, who has another committee meeting to go to, if that's all right.

Mr. WAXMAN. Thank you very much, Mr. Chairman, for holding this hearing, Mr. Tierney for yielding to me. I'll try to be at this hearing as much as possible, because I think it's a very important one.

Just since March, gasoline prices rose an average 31 cents per gallon nationwide. The national average for self-service regular is \$1.65, which is 30 cents lower than the price of regular in California. Gasoline prices often rise for reasons outside of the control of U.S. policymakers. In the 1970's, the cost of gasoline soared when OPEC cut oil production and there was little we could do about this. Similarly, a series of OPEC production cuts that began in December 1998 caused gasoline prices to rise again.

In these circumstances, U.S. policymakers have limited options. When President Clinton faced this challenge in 2000, he successfully urged OPEC and non-OPEC countries to increase oil production, and I hope that President Bush will make similar efforts.

What is unforgivable, however, is for U.S. policymakers to create a gas crisis through their own blunders. But unfortunately, this is exactly what the Bush administration is doing. Mr. Chairman, you and I join the entire California delegation, both Republicans and Democrats, in supporting California's request for a waiver of the Federal oxygenate requirements in gasoline. The science justified this waiver, and EPA wanted to grant it.

But just 2 days ago, President Bush denied it. This decision, which makes absolutely no sense, has the potential to cause a gasoline crisis in California. The decision benefits political supporters of President Bush like Archer Daniels Midland, the largest manufacturer of ethanol. But for California, it means more air pollution and higher fuel costs.

Starting in 2003, California has banned the use of methyl tertiary butyl ether [MTBE], in gasoline, because MTBE contaminates drinking water wells. Because California's waiver request was denied, California will be forced to use the only practical alternative, ethanol. In California, ethanol will not reduce air pollution, yet it is more expensive than MTBE, and it's in short supply. In fact, industry officials estimate that it will take about one third of current U.S. production of ethanol for California to meet the Federal oxygenate requirements.

Shortage of ethanol could cause gas prices to rise by 50 cents a gallon, according to California Governor Gray Davis. What's more, President Bush's decision will cause balkanization of the fuel supply in California. This is completely contradictory to "reducing the number of boutique fuels," a goal of his National energy policy.

Because California will not receive a waiver, oil refiners will have to supply California with at least two different fuels in areas that are classified as severe or extreme, non-attainment areas under the Clean Air Act, like Los Angeles, oil refineries will have to add ethanol to meet the oxygenate requirements of the Clean Air Act. But in other parts of the State, oil refineries only have to meet California's clean fuel standards, which do not require the addition of ethanol.

Moreover, gasoline with ethanol must be segregated from non-oxygenated throughout the distribution process and large quantities of ethanol will have to be imported from halfway across the country. President Bush's decision is so mind-boggling that I awarded him a golden jackpot for failing to grant the California waiver. The golden jackpot is an award that recognizes indefensible government decisions that benefit special interests at the expense of the public interest.

Besides avoiding blunders like the California decision, there are essential affirmative steps that we should implement to reduce gasoline prices. President Bush should put pressure on OPEC to increase supply. We should also increase the fuel economy standards required in motor vehicles, which would significantly reduce our demand for gasoline.

Mr. Chairman, we worked together on a bipartisan basis to urge President Bush to grant California's waiver. We were unsuccessful in that effort, but I hope we can work together on other policies to alleviate gasoline price hikes and any other potential fuel shortages.

I thank you very much for allowing me to make this opening statement.

Mr. OSE. Thank you, Mr. Waxman.

Mr. Cannon.

Mr. CANNON. Thank you, Mr. Chairman.

I have an opening statement that I'd just like to submit for the record.

Mr. OSE. Without objection.

Mr. Tierney.

Mr. TIERNEY. Thank you, Mr. Chairman.

I want to thank you for holding this hearing. As Mr. Waxman already stated, the price of gasoline has increased significantly between May and March of this year, and the American public does deserve to know what's happening and what we're going to do about it.

Clearly, one factor that is contributing to the rise in high prices is the high cost of crude oil. In December 1998, the cost of crude oil was 23.4 cents a gallon. Today that cost is two to three times more expensive at around 66 cents a gallon, and it reflects the fact that OPEC countries have significantly limited supplies.

Other foreign oil producers, including Mexico, are joining in and significantly reducing their production. If we're going to see relief at the pump any time soon, we're going to have to address that problem. Mr. Waxman alluded to the fact that in the previous administration, President Clinton lobbied foreign producers, and as a result they increased their production quotas by more than 3½ million barrels per day. It's interesting to note that during that period of time, as a candidate, the current President was pretty harsh in his criticism of President Clinton, pretty insistent, in fact, that President Clinton do that lobbying, which he then in turn did and met with some success.

I urge the Bush administration now to heed its own words and do the same. We've had a decrease in the months that this administration has been in office. Mexico alone, with which this particular administration is supposed to have a special relationship, could

increase its production capacity by 500,000 barrels per day over the next 2 years, even more than that, going further out. They have in fact reduced their production by some 40,000 per day.

So, we also have to look at the issue of market manipulation. We should be looking at it seriously as it pertains to the oil industry. I notice that in some of the written testimony, and I suspect that we'll hear in some of the testimony today, claims that the Federal Trade Commission found no illegality with respect to what went on in the Midwest last year. But that begs the question, in fact, that what they found was that gasoline price spikes last spring in the Midwest were caused in part by refineries curtailing production and withholding supply. That may not be illegal, but it certainly was a cause, part of the cause of the rise in prices.

Three companies produced 23 percent less reformulated gasoline in 2000 than they did in 1999, thus substantially limiting supply. One company that was later identified by the Wall Street Journal as Marathon Ashland substantially increased its production of reformulated gasoline, and then, despite its increased production that increased excess supplies, it withheld supplies in order to sustain high retail prices. So, maybe there was nothing illegal about it, and maybe the industry wants to keep going around banging on that drum. But, the fact of the matter is, they took actions, and by those actions, we had a price hike.

The Wall Street Journal reported that "the steep prices substantially boosted prices for Marathon Ashland," and refining and marketing profits were more than double from the year before. Marathon Ashland represents more than 5 percent of the total refining capacity in the United States. Clearly, if this type of behavior is continuing at Marathon Ashland or other refineries, and this should be explained, it could explain part of the steep rise in prices.

The refining industry is making huge profits and consumers are paying for it at the pump. Oil Daily, which is an industry newsletter, reported, "U.S. independent refiners say that they are on pace to exceed last year's record profits, due to robust refining margins—Valero and Sunoco both announced that second-quarter profits would exceed Wall Street forecasts by a hefty margin, owing largely to the strength of the U.S. gasoline market, where profit margins soared in April and May—a combination of low product inventories, tightening environmental specifications on fuels, and strong demand has led to higher-than-normal refining margins in the United States over the past year, lining the pockets of refiners."

Between 1999 and 2000, profits for the top 10 petroleum refining companies on average have doubled. The profits of Valero Energy Services increased by 437 percent in this same time period: profits for Phillips Petroleum increased by 127 percent; and profits for Chevron increased by a mere 110 percent. In addition, profits in the first quarter of 2001 are on average 81 percent higher than they were in the first quarter of 2000. This is the same industry that received tens of billions of tax credits, and is expected to benefit from another \$15 billion in tax breaks and incentives over the next 5 years.

I hope, Mr. Chairman, that this hearing will help us determine whether a portion of these enormous profits came from price gouging or from market manipulation.

At this hearing, we can also anticipate hearing a great deal of discussion regarding environmental protections. I would like to take a moment to urge the President to improve the corporate average fuel economy standards. We have the technology to implement increases, we can conserve 3 million barrels per day and we can pay less at the pump. Regardless of the Vice President's claim that real men don't conserve, in fact, conservation can have a serious, positive impact, and we would reduce our contribution to global warming at the same time.

I expect that some may claim that other environmental protections contribute to higher gasoline prices, so I want to take a moment and review some of these claims. Last spring, when there were gasoline price hikes in the Midwest, especially in the price for reformulated gasoline [RFG], many claimed that the price increase was due to the RFG program. However, we investigated this issue extensively and learned that environmental regulations were not to blame. In fact, the average retail price for RFG everywhere except in Chicago and Milwaukee was 1 percent lower than the average retail cost of conventional gasoline, indicating that RFG can be produced inexpensively.

Furthermore, the Federal Trade Commission, as I mentioned earlier, found that the refineries in the Chicago and Milwaukee area were curtailing production and withholding supplies of RFG to the region, and these activities contributed to the price hikes.

Others may charge that environmental protection has discouraged expansion of our domestic refining capacity. President Bush, in fact, recommends one, that the EPA provide more regulatory certainty to refinery owners and streamline the permitting process, two, that the EPA review new source review, including administrative interpretation and implementation and its impact on investment in new utility and refinery generation capacity, and three, the Attorney General review existing enforcement actions regarding new source review to assure that the enforcement actions are consistent with the Clean Air Act and its regulations.

Now, anybody reading the testimony of some of our witnesses today would wonder whether the administration was looking over the shoulder of the people writing that testimony or vice versa, but it's remarkably close.

New source review requires new refineries, and existing refineries that undergo a significant expansion that substantially increases emissions of pollution to install up-to-date pollution controls. There is little, if any, evidence that they have discouraged the building of new refineries or the expansion of existing refineries. Industry has not applied for a permit to build a new refinery for over 25 years. In fact, industry closed down 50 refineries over the last 10 years, presumably 50 of the dirtiest refineries, thus giving us cleaner air. During the same period, refinery capacity at existing facilities has expanded and the EPA has not denied a single permit to expand.

The evidence indicates that the choice not to build new refineries was primarily the result of business decisions, market forces, not

environmental regulations. For example, the New York Times reported on May 13, 2001, “such regulations are viewed by many executives as nuisances rather than as barriers to meeting demand—but, the bigger headache for industry is the fierce competition that keeps profit margins thin. Our margins are not wide enough to justify building new refineries. Where we need to expand, we do it at the existing sites”—from Gene Edwards, senior vice president of Valero Energy of San Antonio, one of the Nation’s largest independent refiners.

Moreover, given the industry’s record profits, it appears that refineries can afford the cost of installing modern pollution controls.

And last, let me indicate that with respect to boutique fuels, the President also recommended review of the use of boutique fuels. It’s important to note that boutique fuels have arisen primarily as a function of States’ rights, with the encouragement and support of oil companies. In the words of the National Petrochemicals and Refiners Association, “because local air quality conditions vary, NPRA does not support the establishment of a single performance standard for gasoline or diesel throughout the U.S.”

However, there is a concern that the number of fuels may be increasing gasoline prices, and if that’s the case, why not require cleaner burning fuel nationwide? I understand that there are concerns about the oxygenate requirement in RFG. However, we could require a fuel that is at least as clean as RFG. We learned that RFG could be produced inexpensively, and in fact, during the price spikes of the spring of 2000 the cost of RFG was generally 1 cent lower than conventional gasoline.

Mr. Chairman, I know my time has run and you’ve been kind to listen to that. I just want to say that I will ask for unanimous consent to include copies of articles and testimony that I referred to, as well as miscellaneous materials in the record.

Mr. OSE. Without objection.

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

**Statement of Rep. John Tierney  
June 14, 2001  
Subcommittee Hearing on Gasoline Supply**

Mr. Chairman, thank you for holding this hearing. Between March and Mid-May, the price of gasoline has increased, on average, 31 cents per gallon. The American public deserves some answers as to why this is happening and what we are going to do to about it.

Crude Oil

Mr. Chairman, clearly, one factor that is contributing to the rise in prices is the high cost of crude oil. In December 1998, the cost of crude was only 23.4 cents a gallon. Today, crude oil prices are two to three times more expensive -- 66 cents a gallon. These prices reflect the fact that OPEC countries have significantly limited supplies. Other foreign oil producers, including Mexico, are joining in and substantially reducing production. If we are going to see relief at the pump any time soon, we are going to have to address this problem.

Last year, President Clinton lobbied foreign producers, and they increased production quotas by more than 3.5 million barrels per day. I urge the Bush Administration to do the same. Mexico, alone, could increase production capacity by 500,000 barrels per day over the next two years. I hope this avenue is explored.

Market Manipulation

We also should be looking at market manipulation by the oil industry. The Federal Trade Commission found that the gasoline price spikes last Spring in the Midwest were caused, in part, by refineries curtailing production and withholding supply. Three companies produced 23% less reformulated gasoline in 2000 than they did in 1999, substantially limiting supply. One company, later identified as Marathon Ashland by the *Wall Street Journal*, substantially increased its production of reformulated gasoline and then, despite its excess supplies, withheld supplies in order to sustain high retail prices. The *Wall Street Journal* reported that, "the steep prices substantially boosted profits for Marathon Ashland" and refining and marketing profits were more than double from the year before. Marathon Ashland represents more than 5% of the total refining capacity in the United States. Clearly, if this type of behavior is continuing at Marathon Ashland or other refineries, this could explain the steep price spikes.

The refining industry is making huge profits while consumers pay high prices at the pump. *Oil Daily*, an industry newsletter, reported that, "US independent refiners say they are on pace to exceed last year's record profits, due to robust refining margins . . . Valero and Sunoco both announced that second-quarter profits would exceed Wall Street forecasts by a hefty margin, owing largely to strength in the US gasoline market, where profit margins soared in April and May. . . . A combination of low product inventories, tightening environmental specifications on fuels, and strong demand has led to higher-than normal refining margins in the US over the past year, lining the pockets of refiners."

Between 1999 and 2000, profits for the top ten petroleum refining companies, on average,

doubled. Profits for Valero Energy Services increased by 437% in this time period, profits for Phillips Petroleum increased by 127%, and profits for Chevron increased by 110%. In addition, profits in the first quarter of 2001 are, on average, 81% higher than they were in the first quarter of 2000.

This is the same industry that received tens of billions of tax credits and is expected to benefit from another \$15 billion in tax breaks and incentives over the next five years.

I hope that this hearing will help us determine whether a portion of these enormous profits came from price gouging or market manipulation.

#### Environmental Regulations

At this hearing, we can anticipate a great deal of discussion regarding environmental protections. I would like to take a moment to urge the President to improve Corporate Average Fuel Economy (CAFE) Standards. We have the technology to implement increases, we can conserve 3 million barrels per day, and we can pay less at the pump. And we would reduce our contribution to global warming.

I expect that some may claim that other environmental protections contribute to higher gasoline prices, so I would like to take a moment to review some of these claims:

#### 1) Reformulated Gasoline Program

Last Spring, when there were gasoline price spikes in the Midwest, especially in the price for reformulated gasoline -- or RFG, many claimed that the price increase was due to the RFG program. However, we investigated this issue extensively and learned that environmental regulations were not to blame. In fact, the average retail price for RFG everywhere except in Chicago and Milwaukee was one cent lower than the average retail cost of conventional gasoline, indicating that RFG can be produced inexpensively. Furthermore, the FTC found that refineries in the Chicago and Milwaukee area were curtailing production and withholding supplies of RFG to the region and these activities contributed to the price spikes.

#### 2) New Source Review

Others charge that environmental protections discourage expansion of our domestic refining capacity. President Bush recommends that (1) the EPA provide more regulatory certainty to refinery owners and streamline the permitting process, (2) the EPA review New Source Review, including administrative interpretation and implementation, and its impact on investment in new utility and refinery generation capacity, and (3) the Attorney General review existing enforcement actions regarding New Source Review to ensure that the enforcement actions are consistent with the Clean Air Act and its regulations.

New Source Review requires new refineries and existing refineries that undergo a significant expansion and emit substantially more pollution to install up-to-date pollution controls. There is little, if any, evidence that they have discouraged the building of new refineries or the expansion of existing refineries. Industry has not applied for a permit to build a new refinery for over 25 years. In fact, industry

closed down 50 refineries over the last ten years. During the same period, refining capacity at existing facilities has expanded and EPA has not denied any permit to expand.

The evidence indicates that the choice not to build new refineries was primarily the result of business decisions, not environmental regulations. For example, the *New York Times* reported on May 13, 2001, that, "such regulations are viewed by many executives as nuisances rather than as barriers to meeting demand. . . . But the bigger headache for industry is the fierce competition that keeps profit margins thin. 'Our margins are not wide enough to justify building new refineries. When we need to expand, we do it at existing sites,' said Gene Edwards, senior vice president of Valero Energy of San Antonio, one of the nation's largest independent refiners."

Moreover, given the industry's record profits, it appears that refineries can afford the cost of installing modern pollution controls.

### 3) Boutique Fuels

The President also recommended review of boutique fuels. It is important to note that boutique fuels have arisen primarily as a function of state's rights with the encouragement and support of the oil companies. In the words of the National Petrochemicals and Refiners Association (NPRA): "[b]ecause local air quality conditions vary, NPRA does not support the establishment of a single performance standard for gasoline or diesel throughout the U.S."

However, if there is a concern that the number of fuels may be increasing gasoline prices, why not require cleaner-burning fuel nationwide. I understand that there are concerns about the oxygenate requirement in RFG; however, we could require a fuel that is at least as clean as RFG. We learned that fuel that is as clean as RFG can be produced inexpensively. In fact, during the price spikes in the Spring of 2000, the cost of RFG was one cent lower than conventional gasoline. Moreover, if one type of fuel were required nationwide -- the efficiencies in production and transportation would likely lead to even lower prices.

In conclusion, there are a number of factors -- such as the tight world crude oil supply and market manipulation -- which we already know contributed to high prices. On the other hand, evidence that environmental regulations are significantly contributing to the problem is weak. Therefore, it would be inappropriate to try to use the gasoline crisis as an excuse for weakening important environmental protections.

Mr. Chairman, I ask unanimous consent to include in the record copies of the articles and testimony I have just referred to and other miscellaneous materials.

I look forward to hearing from the witnesses.

Mr. TIERNEY. The balance of my remarks I'll put on the record, and I look forward to hearing from these witnesses and getting more evidence. Thank you.

Mr. OSE. Thank you, Mr. Tierney.

Mr. Otter for 5 minutes. Will the counsel please start the clock?

Mr. OTTER. I have no opening statement, thank you, Mr. Chairman.

Mr. OSE. Do you have anything you wish to submit for the record?

Mr. OTTER. No, I do not.

Mr. OSE. All right. Mr. Kucinich for 5 minutes.

Mr. KUCINICH. I thank the gentleman.

Oil companies posting record profits are blaming everyone but themselves for the excessive gas price increases. The consumer is being gouged and the oil companies continue to avoid their responsibilities. Their record profits are massive. Consider the 251 percent increase in profits Occidental reaped last year, or the \$17.7 billion profit posted by Exxon-Mobil last year.

If environmental regulations are to blame for excessive gasoline prices, oil companies should be supporting them, because they're making a killing. But they don't. Because they know that environmental regulations have little to no impact on gasoline prices. If you want to know why gasoline prices are high, all you have to do is follow the money. Oil companies have it, and I don't think it got there accidentally.

I've introduced H.R. 1967, the Gas Price Spike Act of 2001, which will authorize a windfall profits tax on gasoline and other related fuels, create tax credits for ultra-efficient vehicles, lower fares for mass transit and grant the Attorney General the authority to order the licensing of reformulated gasoline patents at a fair and competitive price. This legislation will institute a windfall profit tax on gasoline, diesel and crude oil. Such a tax is to be imposed on all industry profits that are above a reasonable profit level, which should be based on the history of oil company profits.

This proposal would not increase the cost of gasoline or any other fuel, because this proposal does not tax the price of any of these fuels. It only taxes excessive profits at each transaction in the production of these fuels. Some of the revenue from the windfall profits tax will be used to offer tax credits of up to \$6,000 to Americans who buy ultra-efficient cars that are union made in America. These will be directly available to the purchaser of a car that traveled at least 45 miles on a single gallon of gas or driven with an electric motor. In an effort to provide relief, the bill makes funding available to regional transit authorities to offset significantly reduced mass transit fares during times of gas price spikes.

The gas industry has also blamed high prices of reformulated gasoline on a patent dispute with Unocal that is deterring the industry from making cleaner burning reformulated gasoline [RFG], and making RFG more expensive for consumers. By amending the Clean Air Act, the monopoly control of RFG is eliminated. This will lead to lower gasoline prices because it will make the process for manufacturing RFG available to all oil companies. The owners of the patents will be fairly compensated, more RFG will be produced, lowering the price of RFG.

I think it's particularly vexing to have a condition where consumers are being socked with these high prices, being gouged at the pump and simultaneously told that they should expect to have the quality of their air diminished. There's one transfer of wealth going on, from the consumer to the oil companies, because of the way the market is rigged. And there's another transfer of wealth going on, the wealth of the natural treasure of our resource of clean air transferred to these companies that do not want to abide by environmental regulations that are ensuring the quality of life for all Americans.

So I think this is a particularly interesting hearing to have, and I appreciate a chance to be present at it. Thank you, Mr. Chairman.

Mr. OSE. The gentleman's time has expired. The Chair recognizes the gentlelady from Hawaii, Mrs. Mink, for 5 minutes.

Mrs. MINK. Thank you, Mr. Chairman. I reserve my right to include my remarks at the end of the hearing. Thank you.

Mr. OSE. Just a moment.

Mrs. Mink, would you clarify? You're going to make your remarks during the course of the hearing?

Mrs. MINK. I reserve my time for the end, where I could make my remarks at that time.

Mr. OSE. We'll be happy to give you time at the end, regardless.

Mrs. MINK. Thank you.

Mr. OSE. OK. At this committee, we swear in our witnesses, so if you would please rise.

[Witnesses sworn.]

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

Joining us on the first panel today is Mr. John Cook, who is the Director of the Petroleum Division for the Energy Information Administration at the Department of Energy, and also Mr. Robert D. Brenner, who is the Acting Assistant Administrator for the Office of Air and Radiation at the U.S. Environmental Protection Agency.

Gentlemen, thank you for coming. Mr. Cook, you're recognized for 5 minutes.

**STATEMENTS OF JOHN COOK, DIRECTOR, PETROLEUM DIVISION, ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY; AND ROB BRENNER, ACTING ASSISTANT ADMINISTRATOR, OFFICE OF AIR AND RADIATION, U.S. ENVIRONMENTAL PROTECTION AGENCY**

Mr. COOK. Thank you, Mr. Chairman and members of the committee, for the opportunity to testify today.

Gasoline prices have begun declining, as we expected, from this spring's apparent peak of \$1.71 on May 14, with the national average now standing at \$1.65. Between late March and mid-May, retail prices rose 31 cents a gallon, some regions experiencing even greater increases. Like last year, Midwest consumers saw some of the largest increases and along with California, some of the highest prices.

Prices in the Midwest increased 43 cents a gallon over this 7 week period, peaking at \$1.81 on May 14. However, since then, Midwest gasoline prices have fallen faster than the national aver-

age, now down 16 cents from the peak, according to EIA's latest survey.

Most of the factors that affected prices last year were again at work this year. The relatively tight crude oil market, resulting in low petroleum inventories, relatively tight spring gasoline supply demand balance, compounded by extensive refinery maintenance, unique regional and seasonal products, high refinery capacity utilization and dependence on distant supplies. When these factors come together, just as they did last year, rapid price run-ups can occur.

The principal difference from last year's pattern has been timing. This year's increases occurred a month earlier. Barring any major infrastructure problems over the remainder of the summer, we expect the current decline to continue just as we saw last summer.

I'd like to turn next to a brief summary of these factors, beginning with inventories. Low stocks set the stage for gasoline price increases this spring, just as they did last year for heating oil and gasoline. Low inventories originate in the tight global crude oil supply demand balance that evolved in early 1999. This ongoing tightness has been a key factor in maintaining both low crude and product inventory since then.

Actions taken by OPEC are largely responsible for the sharp increase in oil prices from the \$10 levels seen in December 1998. OPEC dramatically reduced crude oil production in 1998 and again in 1999, so much so that even after four increases last year, inventories remained at relatively low levels this spring, especially for the developed countries of the OECD.

Furthermore, scarce crude supplies encourage high near term prices relative to those for future delivery. This situation, referred to as backwardation, discourages discretionary inventory growth and maximum refinery production. Thus with crude oil and product inventories relatively low, again entering this spring, little cushion existed to absorb unexpected imbalances in supply and demand, thereby setting the stage for volatility.

Although world demand is again projected to grow this year, OPEC's current plans imply even less production than last year. This is expected to limit global inventory growth and maintain crude prices close to \$30 for the balance of the year.

The recent OPEC meeting and Iraqi exports cutoff could result in oil production levels low enough to again cause us to enter the fourth quarter with both low crude and product inventories, especially heating oil. Last year, in a similar situation, OPEC did not increase its quotas significantly until fall. Thus, there was insufficient time to buildup heating oil inventories by the time winter started. Even if Iraqi imports are suspended for just a brief time, petroleum markets are likely to be tight. But if Iraqi imports are cutoff for a month or more and not fully offset by other producers, market conditions will definitely be tighter.

Returning to U.S. markets, and gasoline in particular, stocks were even lower this spring than last year. In recent weeks, there's been significant improvement, though, and as of Friday June 8th, stocks were about 2 percent above their seasonal 5 year average. Nevertheless, both conventional and RFG gasoline markets exhib-

ited low stocks and tight conditions over this mid-March to mid-May period.

Low inventories were partially a consequence of refineries focusing strongly on distillate production last winter, given that the United States entered the season with low stocks. They're also a consequence of high natural gas prices which encouraged fuel switching to distillate, heightening the focus on distillate production at the expense of gasoline.

Furthermore, high natural gas prices undercut the production of clean gasoline components, including MTBE. In addition, relatively strong late winter gasoline demand combined with extensive refinery maintenance to sustain downward pressure on inventories. Gasoline prices were in steep backwardation until recently, thereby discouraging inventory growth at the margin.

Several other factors are also at work that add to the potential for volatility when stocks are low. Today's market is comprised of many different types of gasoline serving different regional markets to meet varying environmental requirements. While producing these specialized products can be an efficient approach for individual refineries to meet regional air quality needs, it's not necessarily efficient for the overall marketplace.

Mr. OSE. Mr. Cook, you need to wrap up here.

Mr. COOK. OK, sorry. This large number of product types adds a level of complexity to the distribution system. This targeted approach has been, in particular, one to create gasoline islands. The primary examples are well known, California and the Chicago area, which require unique blends. Only a limited number of refineries make these products, thus when stocks are drawn down, prices surge, given that these specialized fuels cannot be quickly resupplied.

Another factor is limitations on refinery capacity. The summer of 1997 was the first time the system was pushed to its limits and unable to respond adequately when gasoline demand surged. As a result, seasonally low stocks were drawn further, and prices surged.

This summer, we again saw what can happen when low inventories combine with regional capacity limitations and unique gasoline requirements. For example, in the Midwest, the closure of the Blue Island refinery created a concern about the level of RFG supplies in the Chicago area. The closure also created the need for greater volumes to move from the Gulf Coast. Economic incentives to build inventories were further eroded as Gulf Coast prices surged in response to the strong demand not only from the Midwest, but also from the West Coast, the East Coast where refineries were undergoing extensive maintenance.

Thus, in April, with little inventory cushion in place, and a transition from winter to summer grade gasolines requiring the running down of tanks, further undercutting stocks and Tosco's Wood River refinery having a fire, reducing its ability to produce conventional and reformulated gasoline, we saw this surge.

In closing, I would like to note that almost exactly 1 month ago, EIA in testimony before another House committee stated that we thought gasoline prices were nearing the peak for the summer. At that time, we noted the United States was nearing the end of what

is usually one of its tightest times in the market, when gasoline demand begins to rise seasonally and refineries are winding up maintenance.

Since the end of March, production has jumped significantly. Refineries have ramped to full capacity, Wood River is now fully operational, boosting Midwest supplies, and imports are streaming into the East Coast. As a result, stocks have returned to the normal range. Barring further refinery or other major problems, we do expect prices to drop significantly over the balance of the summer.

Finally, I should caution, that gasoline markets remain exposed to volatility, particularly toward the end of the summer when demand peaks. Some factors suggesting the potential return of late summer volatility include likely low global inventories, as I noted earlier, even with the early return of Iraqi exports and gasoline markets here and in Europe already signaling a potential reduction in crude runs and gasoline production.

That concludes my testimony.

[The prepared statement of Mr. Cook follows:]

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**STATEMENT OF  
JOHN COOK  
DIRECTOR, PETROLEUM DIVISION  
U.S. DEPARTMENT OF ENERGY  
ENERGY INFORMATION ADMINISTRATION  
BEFORE THE  
COMMITTEE ON GOVERNMENT REFORM  
SUBCOMMITTEE ON ENERGY POLICY, NATURAL RESOURCES AND  
REGULATORY AFFAIRS  
U.S. HOUSE OF REPRESENTATIVES  
JUNE 14, 2001**

## SUMMARY

Gasoline prices have begun declining, as expected, from this spring/summer's apparent peak price of \$1.71 on May 14, with the national average for regular gasoline at \$1.68 per gallon as of June 4. Between late March and mid-May gasoline retail prices rose 31 cents per gallon, with some regions experiencing even greater increases. Just like last year, Midwest consumers saw some of the largest increases, and along with California, some of the highest prices. Most of the factors that affected prices last year were again at work this year: relatively tight crude oil markets resulting in low petroleum inventories; relatively tight spring gasoline supply/demand balance, compounded by extensive refinery maintenance and unplanned outages; unique regional and seasonal products; high refinery capacity utilization; and dependence on distant supplies. When these factors come together as they did last year and this spring, rapid price runups can occur. The principal difference from last year's pattern has been the timing of this year's rise, with increases occurring a month earlier. Barring any major infrastructure problems during the remainder of the summer, we expect the current gasoline price decline to continue, just as we saw prices fall last summer.

We have passed what usually is one of the tightest times of the year for gasoline markets – the period when gasoline demand begins rising seasonally yet refineries are still winding up maintenance. Since the end of March, production has increased significantly, as refineries have ramped up to full capacity. Barring further major refinery problems, we expect prices to continue declining. Our latest forecast, released just 1 week ago, has monthly average prices peaking at \$1.69 per gallon in May. However, we must caution that with global oil inventories likely to remain low, and given the other factors mentioned, markets will remain exposed to volatility, particularly towards the end of summer when demand peaks.

The recent OPEC meeting and Iraqi cutoff of their oil-for-food exports could result in oil production levels low enough to cause us to enter the 4<sup>th</sup> quarter with low crude oil and heating oil inventories. Last year, in a similar situation, OPEC did not increase its production quotas significantly until Fall. Thus, there was insufficient time to build up heating oil inventories to normal levels by the time winter started. If Iraqi exports are suspended for only a relatively brief period of time, petroleum markets will be tight. But if Iraqi oil exports are cut off for a month or more, and are not fully offset by increased production from other oil producers, market conditions entering the winter could be even tighter.

**Statement of John Cook  
Director, Petroleum Division  
U.S. Department of Energy  
Energy Information Administration  
Before the Committee on Government Reform  
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs  
U.S. House of Representatives  
June 14, 2001**

Thank you Mr. Chairman and members of the Committee for the opportunity to testify today on behalf of the Energy Information Administration.

Gasoline prices have begun declining, as expected, from this spring/summer's apparent peak price of \$1.71 on May 14, with the national average for regular gasoline at \$1.68 per gallon as of June 4 (Figure 1). However, between late March and mid-May, gasoline retail prices rose 31 cents per gallon, with some regions experiencing even greater increases. Like last year, Midwest consumers saw some of the largest increases, and along with California, some of the highest prices. Prices in the Midwest increased 43 cents per gallon over a 7-week period, peaking at \$1.81 on May 14 of this year. But since then, Midwest gasoline prices have fallen on average by 7 cents per gallon. Most of the factors that affected prices last year were again at work this year: relatively tight crude oil markets resulting in low petroleum inventories; relatively tight spring gasoline supply/demand balance, compounded by extensive refinery maintenance and unplanned outages; unique regional and seasonal products; high refinery capacity utilization; and dependence on distant supplies. When these factors come together as they did last year and this spring, rapid price runups can occur. The principal difference from last year's pattern has been the timing of this year's rise, with increases occurring a month earlier. Barring any major

infrastructure problems during the remainder of the summer, we expect the current gasoline price decline to continue, just as we saw prices fall last summer. The factors that led to the price increases seen earlier this year are summarized below.

***Inventories***

Low stocks set the stage for gasoline price increases this spring, just as they did last year both for heating oil and gasoline. Low inventories originate in the tight global crude oil supply/demand balance that evolved in early 1999. This ongoing tightness has been a key factor in maintaining low crude and product inventories since then.

Actions taken by OPEC and several other crude oil exporting countries are largely responsible for the sharp increase in oil prices from the \$10 levels seen in December 1998. OPEC dramatically reduced crude oil production in 1998 and early 1999, so much so, that, even after four production increases last year, inventories remained at relatively low levels this spring, especially in the developed countries of the Organization for Economic Cooperation and Development (OECD). Furthermore, up until the last several months, scarce crude supplies encouraged high near-term prices relative to those for future delivery. This situation, referred to as backwardation, discouraged discretionary inventory growth, and maximum refinery production. Thus, with crude oil and product inventories relatively low again entering Spring, little cushion existed to absorb unexpected imbalances in supply and demand, setting the stage for volatility. Although world demand is projected to continue growing this year, OPEC's current plans imply even less production than last year.

This is expected to limit global inventory growth, and maintain crude oil prices close to \$30 per barrel for the remainder of the year.

The recent OPEC meeting and Iraqi cutoff of their oil-for-food exports could result in oil production levels low enough to cause us to enter the 4<sup>th</sup> quarter with low crude oil and heating oil inventories. Last year, in a similar situation, OPEC did not increase its production quotas significantly until Fall. Thus, there was insufficient time to build up heating oil inventories to normal levels by the time winter started. If Iraqi exports are suspended for only a relatively brief period of time, petroleum markets will be tight. But if Iraqi oil exports are cut off for a month or more, and are not fully offset by increased production from other oil producers, market conditions entering the winter could be even tighter.

Returning to U.S. markets and gasoline in particular, U.S. gasoline inventories were even lower this spring than last year (Figure 2). In recent weeks, there has been some improvement, and as of June 1, stocks were about 1% below their seasonal 5-year average. Midwest inventories were slightly lower, 2% lower than their 5-year average (Figure 3). However, both conventional and RFG gasoline markets exhibited low stocks and tight market conditions over the mid-March to mid-May period. Low inventory levels were partially a consequence of refineries focusing strongly on distillate production last winter, given that the United States entered the heating season with very low stocks. They were also a consequence of high natural gas prices, which encouraged fuel switching to distillate, heightening the focus on distillate production at the expense of gasoline. Furthermore, high natural gas prices undercut production of key clean gasoline components, including MTBE. In addition, relatively strong late

winter gasoline demand combined with extensive refinery maintenance to sustain downward pressure on inventories. Finally, gasoline prices were in steep backwardation until recently, discouraging inventory growth at the margin.

***Large Number of Gasoline Types***

Several other factors are also at work, adding to the potential for volatility when inventories are low. Today's gasoline market is comprised of many types of gasoline that serve different regional markets to meet varying environmental requirements. While producing specialized products can be an efficient approach for individual refineries to meet regional air quality needs, it is not necessarily efficient for the overall marketplace. The large number of product types adds a level of complexity to production, distribution and storage of gasoline.

The result of this targeted approach has been to create gasoline islands. The primary examples are California and the Chicago/Milwaukee areas, in which the required gasolines are unique, and only a limited number of refineries make these products. When gasoline inventories in these regions are drawn down rapidly in response to either unusually high demand or supply problems at any of the few refineries producing these specialized products, gasoline prices surge. Even if other gasoline markets are not tight, these price surges may be extended since these specialized fuels can not be quickly re-supplied.

***Refinery Capacity Constraints***

Refinery capacity limitations have also become a factor affecting the U.S. gasoline market, especially during periods of low inventories. The summer of 1997 was the first time the U.S. refinery system was pushed to its practical operating limits

and was unable to respond adequately to unusually high gasoline demand (Figure 4). As a result, seasonally low inventories were rapidly depleted and prices surged. Since then, capacity has grown slightly more than demand, but capacity is still tight during the summer.

With little inventory to cover supply/demand imbalances, and many refineries running at their practical limits, any supply problems such as refinery outages may not be resolved quickly. This increases the time required for re-supply and thus increases both the height and duration of any price spike. Furthermore, even if oil market conditions ease, lack of excess refining capacity may impede the system's ability to recover from these low inventories quickly.

***Dependence on Distant Supplies***

Thus, if local inventories and local refineries cannot respond adequately to a temporary shortfall in supply, extra product may have to come from distant sources. The cost, capacity and reliability of logistical systems, as well as travel time for movement of new supply, can all impact the total time needed for adequate supply levels to reach markets, and prices respond accordingly. For example, travel time alone can be 2 or 3 weeks for product to move from the Gulf Coast to the upper Midwest. Distance and lack of pipeline connections have always been a factor affecting California markets. Last year problems with the Explorer pipeline, which brings products from the Gulf Coast to the Midwest, helped to propel prices upward.

***This Summer***

This year we again saw what can happen when low inventories combine with regional capacity limitations and unique gasoline requirements. First, in the Midwest,

the shutdown of the Blue Island refinery in Illinois created a level of concern about RFG supplies in Chicago and Milwaukee. The closure also created the need for greater volumes to move from the Gulf Coast to the Midwest. Economic incentives to build inventories were further eroded as Gulf Coast prices surged in response to strong demand not only from the Midwest and West Coast, but also from the East Coast, where refineries underwent extended maintenance. During April, with little inventory cushion in place, the transition from winter to summer grade reformulated gasoline in the Midwest required running tanks down to very low levels, further undercutting stock levels. Just as tanks were beginning to refill, Tosco's Wood River, Illinois refinery had a fire that reduced its ability to produce both conventional and reformulated gasolines for a period of 2-3 weeks.

While East Coast prices did not surge as much as the Midwest, the East Coast endured extended refinery maintenance in early spring. In addition, several foreign refineries that are key suppliers of reformulated gasoline to the East Coast had extended outages.

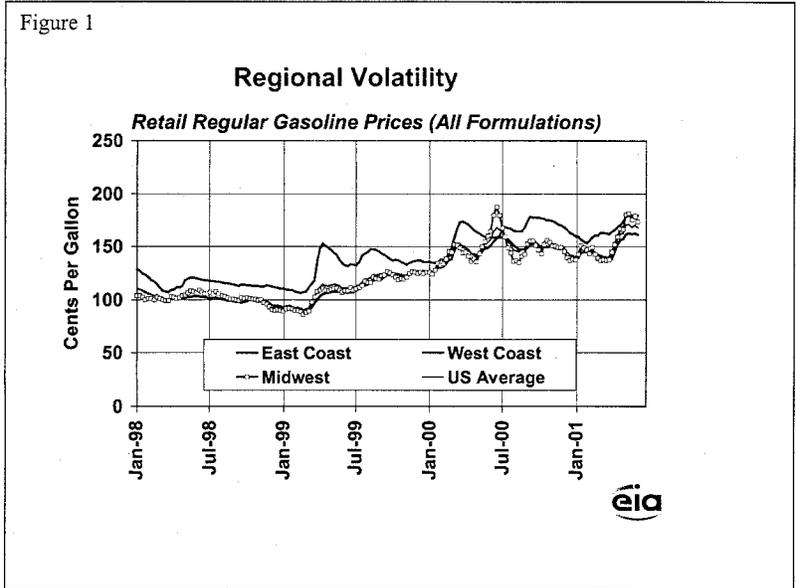
California frequently sees price surges due to its tight supply/demand balance, the unique nature of its gasoline, and its long distance from other supply sources. This spring has been no exception.

Almost exactly one month ago, EIA testified before another Committee that we thought we were nearing the peak gasoline price this summer. At that time, we noted that the United States was nearing the end of what usually is one of the tightest times of the year for gasoline markets – the period when gasoline demand begins rising seasonally yet refineries are still winding up maintenance. Since the end of

March, production has increased significantly, as refineries have ramped up to full capacity. The Wood River refinery is now fully operational, boosting Midwest supplies, while imports have continued to stream into East Coast markets at an unprecedented pace. As a result, stocks have returned to the low end of the normal range nationally; however, some regions remain tighter than others, primarily those using RFG.

Barring further major refinery or other infrastructure problems, we expect prices to continue declining this summer, much like last year's drop. Our latest forecast, released one week ago, has monthly average prices peaking at \$1.69 per gallon in May, before dropping to \$1.55 by September. Weekly price decreases may be even greater. Nevertheless, we must caution that gasoline markets remain exposed to volatility, particularly towards the end of summer when demand peaks. Factors that would tend to increase volatility include global oil inventories that are likely to remain low, even with an early return of Iraqi exports, and gasoline markets here and in Europe already signaling a potential reduction in crude runs and gasoline production.

That concludes my testimony and I would be happy to answer any questions the Committee might have on the current gasoline situation.



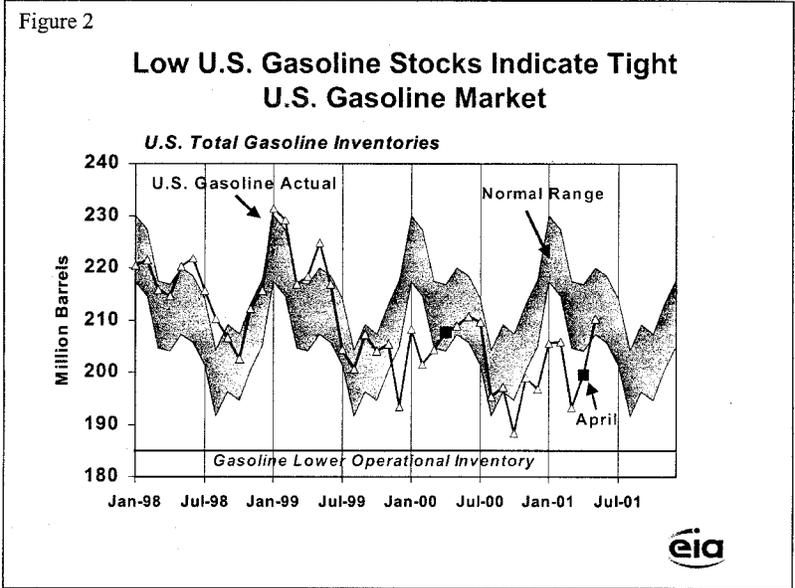
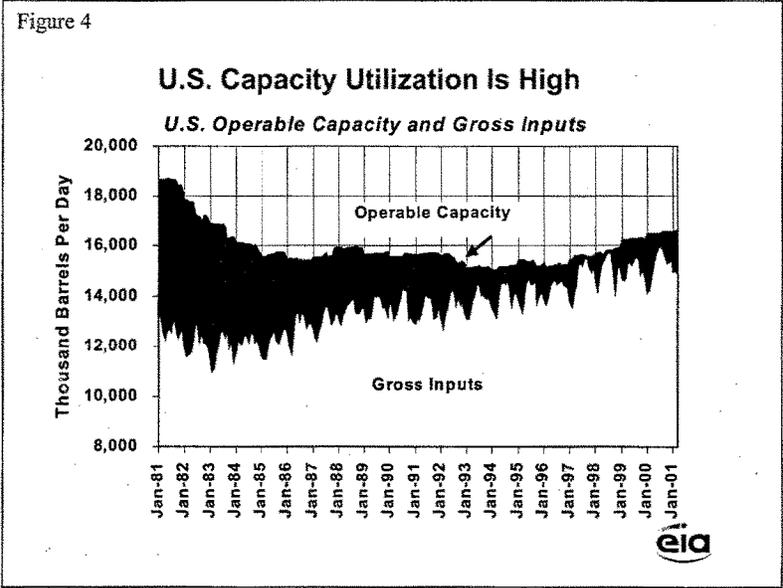


Figure 3

### Regional Stocks

<b>Total Gasoline Ending Stocks (Thousand Barrels)</b>						
	<b>PADD I</b>	<b>PADD II</b>	<b>PADD III</b>	<b>PADD IV</b>	<b>PADD V</b>	<b>Total US</b>
<b>01-Jun-01</b>	56,344	51,051	63,833	5,762	33,275	210,265
<b>Avg. '96-'00</b>	62,274	52,204	61,058	6,339	30,334	212,209
<b>vs. 5-year</b>	-9.5%	-2.2%	4.5%	-9.1%	9.7%	-0.9%
<b>vs. Last yr</b>	-4.2%	2.7%	1.0%	-13.9%	9.1%	0.7%





Mr. OSE. Thank you, Mr. Cook.

Mr. Brenner, we're going to go ahead and take your testimony. I want to remind you, we have received your written testimony. I know I've read it, I know staff's read it, I'm sure my colleagues on both sides of me have read it. If you could be brief, I would appreciate it.

Mr. Otter went to vote, he's going to come back so we can keep the hearing going, then I'm going to go vote, as well as my colleagues. We're going to try to keep this thing rolling. Mr. Brenner, for 5 minutes.

Mr. BRENNER. Thank you, Mr. Chairman and members of the subcommittee.

Thanks for inviting me here today to outline EPA's gasoline initiatives related to President Bush's National Energy Policy, and to discuss the vital role that cleaner burning gasoline plays in improving America's air quality. I will offer a brief opening statement and submit my longer statement for the record, as you requested.

Mr. Chairman, let me assure you first and foremost that this administration is determined to see that consumers continue to receive the benefits of cleaner burning gasoline at a reasonable price. When Congress passed the Clean Air Act amendments of 1990, it established a number of programs to achieve cleaner motor vehicles and cleaner fuels. These programs have been highly successful in protecting public health by reducing harmful vehicle exhausts.

One of these programs, the Reformulated Gasoline Program, was designed to serve multiple national goals, one of which was improving air quality. Today, roughly 35 percent of the gasoline used in this country is reformulated gasoline. RFG is used in 10 metropolitan areas required by Congress, and in areas that have chosen to opt-in to this cost effective pollution reduction program. Those include areas in Kentucky, Texas, Missouri, and the Northeast.

The program is working. RFG has significantly reduced vehicle tailpipe emissions, including emissions of smog forming pollution and air toxics, such as benzene, which is known to cause cancer in humans. Benzene emissions have dropped a dramatic 38 percent in RFG areas, and smog forming emissions have dropped by more than 27 percent. Results like these mean cleaner air for early 75 million Americans at a cost of just 4 to 8 cents per gallon. The cost is small compared to what we saw this spring. Across the country, gas prices climbed in areas that use cleaner burning gasoline and in those that do not.

Similarly, the price drops we have seen since mid-May have occurred across the board. Those spring price increases were influenced by a number of major factors, including the continued high cost of crude oil, a decrease in the amount of oil available on world markets, record low gasoline inventories, following a longer than normal winter heating season, continued increases in vehicle miles traveled and in fuel demand, and decreases in vehicle fuel efficiency.

Finally, American refiners are producing gasoline at nearly full capacity. Any disruption, no matter what the cause, affects the entire U.S. gasoline market. To help reduce disruptions like these in the future, this administration is committed to exploring whether there are ways to increase flexibility for refiners. Already, the ad-

ministration has provided a VOC adjustment for ethanol blended RFG in the upper Midwest. We are looking for ways to minimize disruption when the gasoline distribution system switches from winter to summer fuel.

And as part of our efforts to carry out the President's National Energy Policy, we have begun meeting with the oil industry, States and other stakeholders to examine opportunities to reduce the number of State and local boutique fuels while maintaining or even improving the environmental benefits these fuels produce. We see this study as an opportunity to provide greater flexibility for the fuel production and distribution system.

This concludes my statement, and I'd be happy to answer any questions.

[The prepared statement of Mr. Brenner follows:]

**Testimony of Rob Brenner**  
**Acting Assistant Administrator**  
**Office of Air & Radiation**  
**U.S. Environmental Protection Agency**  
**Before the Committee on Government Reform**  
**Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs**  
**U.S. House of Representatives**  
**June 14, 2001**

Thank you, Mr. Chairman and Members of the Subcommittee, for the invitation to appear here today. Today's hearing is timely. I appreciate the opportunity to discuss the vital role cleaner burning gasoline plays in improving America's air quality and to comment on initiatives related to gasoline contained in the recently announced National Energy Policy. I also will comment on the Environmental Protection Agency's clean gasoline program and the steps taken by Administrator Whitman to make the program more efficient and effective.

Mr. Chairman, first and foremost, the Environmental Protection Agency is concerned that consumers receive the air quality benefits of cleaner burning gasoline (also called reformulated gasoline, or RFG) at a reasonable price. Before discussing recent gasoline price trends, I will review the history and development of the RFG program, and document the air quality benefits derived from the program. I will also explain our on-going actions related to our pending Volatile Organic Compounds (VOC) adjustment rule and concerns regarding "boutique" fuels.

Let me begin with a history of the RFG program.

**History of RFG**

When Congress passed the Clean Air Act Amendments of 1990, it established a number of programs to achieve cleaner motor vehicles and cleaner fuels. These programs have been highly successful in protecting public health by reducing harmful exhaust from the tailpipes of motor vehicles. In the 1990 Amendments, Congress struck a balance between vehicle and fuel emission control programs after extensive deliberation. The RFG program was designed to serve several goals. These include improving air quality and extending the gasoline supply through the use of oxygenates.

Congress established the overall requirements of the RFG program by identifying the specific cities in which the fuel would be required, the specific performance standards, and an oxygenate requirement. The oil industry, states, oxygenate producers and other stakeholders were involved in a successful regulatory negotiation that resulted in the development of the RFG regulations in 1991. EPA published the final regulations establishing the detailed requirements of the two-phase program in early 1994. Thus, the oil companies and other fuel providers had six years to prepare for the performance requirements of the second phase of the program that began last year. In addition, the oil industry has been involved in an EPA RFG implementation advisory workgroup since 1997.

The first phase of the federal reformulated gasoline program introduced cleaner gasoline in January 1995 primarily to help reduce vehicle emissions that cause ozone (smog) and toxic pollution in our cities. Unhealthy smog levels are a significant concern in this country, with over

53 million people living in counties with air quality above the 1-hour ozone standard.

The federal RFG program is required by Congress in ten metropolitan areas which have the most serious air pollution levels. Although not required to participate, some areas in the Northeast, in Kentucky, Texas and Missouri have elected to join, or "opt-in," to the RFG program as a relatively cost-effective measure to help combat their air pollution problems. Today, roughly 35 percent of this country's gasoline consumption is cleaner-burning reformulated gasoline. The Clean Air Act Amendments of 1990 also required that RFG contain 2.0 percent minimum oxygen content by weight. Neither the Clean Air Act nor EPA requires the use of any specific oxygenate. Both ethanol and MTBE are used in the RFG program, with fuel providers choosing to use MTBE in about 87 percent of the RFG. Ethanol is used in 100 percent of RFG in Chicago and Milwaukee, which are closer to major ethanol production centers.

Ambient monitoring data from the first year of the RFG program (1995) indicated that RFG had a positive impact on reducing toxic emissions. RFG areas showed significant decreases in vehicle-related tailpipe emissions. One of the air toxics controlled by RFG is benzene, a known human carcinogen. The benzene level at air monitors in 1995, in RFG areas, showed the most dramatic declines, with a median reduction of 38 percent from the previous year. The emission reductions which can be attributed to the RFG program are equivalent to taking 16 million cars off the road. About 75 million people are breathing cleaner air because of RFG. Since the RFG program began six and one-half years ago, we estimate that it has resulted in annual reductions of VOC and NOx combined of at least 105,000 tons, and at least 24,000 tons of toxic air pollutants.

As required by the Clean Air Act, the first phase of the RFG program began in 1995 and the second phase began in January of last year. As an example of the benefits, in Chicago, EPA estimates that the Phase II RFG program results in annual reductions of 8,000 tons of VOC and NOx combined and 2,000 tons of toxic vehicle emissions, benefitting almost 8 million citizens.

#### Administration Actions Regarding Clean Fuels Programs

In early March, EPA sent a team to Chicago to meet with refiners and marketers in advance of the transition from winter to summer gasoline. Representatives from EPA and the Energy Information Administration have been in weekly contact with refiners and marketers throughout this spring.

#### **VOC Adjustment**

Late in March, Administrator Whitman announced that EPA would finalize its VOC adjustment rule for ethanol-blended reformulated gasoline used in Chicago and Milwaukee. EPA believes that this rulemaking will help provide maximum flexibility for refiners and reduce costs for blending ethanol into gasoline by adjusting the volatile organic compounds (VOC) standards for ethanol reformulated gasoline. This regulatory change responds to one finding of a 1999 report by the National Research Council which suggested that EPA recognize the contribution of CO to ozone formation in assessing of the effects of RFG. The proposal recognizes the CO benefits from oxygenates in the RFG program by offsetting those CO reductions with an adjustment to the VOC performance standard. We expect to complete this action soon. In the interim, EPA has provided enforcement discretion to allow refiners to take advantage of the adjustment.

#### Tank Turnover

Tank turnover refers to the need to replace gasoline in terminal storage tanks due to seasonal changes in gasoline specifications. Fuel providers have been doing this for over ten years to comply with summertime gasoline volatility requirements. Before that, fuel providers followed American Society of Testing & Materials (ASTM) specifications for seasonal changes. Under the cleaner burning RFG program, the tanks at terminals must meet summertime RFG requirements by May 1. Retail stations must meet summer fuel requirements by June 1. This year, EPA asked refiners and marketers to contact us if they experienced tank turnover problems. Although no problems with turnover were reported by anyone in the fuels industry this year, the Agency will discuss with refiners and marketers the subject of tank turnover to determine if additional flexibility can be provided while maintaining the air quality benefits of the RFG program. Any changes in the program would be made prior to the 2002 ozone season.

#### **Reducing the Use of MTBE**

There is significant concern about contamination of drinking water in many areas of the country. Current data on MTBE in ground and surface waters indicate widespread and numerous detections of MTBE at low levels. Data from the U.S. Geological Survey indicates a strong relationship between MTBE use as a fuel additive in an area and finding detections of low levels of MTBE. A number of states have taken action to ban MTBE. Accordingly, EPA published last year an Advance Notice of Proposed Rulemaking requesting comments on a phase down or phase out of MTBE from gasoline under Section 6 of the Toxic Substances Control Act (TSCA). EPA believes that TSCA is the best regulatory process available for limiting or eliminating the use of MTBE. TSCA gives EPA authority to ban, phase out, limit or control the manufacture of any chemical substance deemed to pose an unreasonable risk to public health or the environment. We expect to have a proposal prepared for inter-agency review later this summer. Actions taken by a growing number of states to ban the use of MTBE as a gasoline additive is the single biggest factor that threatens to proliferate boutique fuel requirements around the country. Eleven states have banned MTBE, one as early as the end of 2002. At least a dozen more states are considering similar bans.

#### ***Boutique Fuels***

The Clean Air Act authorizes states to regulate fuels through state implementation plans 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. EPA understands the challenge that state and local "boutique fuel" requirements place on the production and distribution of gasoline in the U.S. These state fuel programs could limit flexibility in the fuel distribution system, particularly if a disruption occurs. If the number of special fuels could be limited, while maintaining needed air quality benefits, greater fungibility within the distribution system could possibly result.

The National Energy Policy report issued on May 17, 2001 includes a recommendation that directs 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 and fungibility of the fuels distribution infrastructure, and provide added gasoline market liquidity. We have begun our boutique fuel assessment; we are consulting various stakeholders, including the states, and expect to make recommendations shortly.

**Production Costs for RFG Do Not Explain Price Increases**

There are many factors that contribute to the price of gasoline. These include: the cost of crude oil; refining costs and profits; refining capacity utilization; distribution and marketing costs; the size of inventories; the size of demand for gasoline and other petroleum products; the balance between this demand and readily available supplies; and the availability of alternative supplies in tight markets.

As my colleague from EIA said in his testimony, most of the factors that affected prices last year have been again at work this year: relatively tight crude oil markets; relatively tight spring gasoline supply/demand balance, compounded by extensive refinery maintenance and unplanned outages; high refinery capacity utilization; unique regional and seasonal products, many of which are referred to as "boutique fuels"; and dependence on distant supplies. I would also like to highlight a few specific points to amplify on this list:

- Gasoline inventories were lower than normal this past spring. Following a longer than normal winter heating season, gasoline supplies going into the 2001 summer driving season were at their lowest levels since 1994.
- Fuel demand continues to increase. March 2001 gasoline usage was up 3% compared to March 2000. Americans continue to travel more. Although recently there have been signs of slowing, Vehicle Miles Traveled (VMT) have been increasing. Over the past twenty years, as the economy has grown, onroad VMT has increased by 114% while population has only grown by 27%. In addition, the fuel economy of the vehicle fleet is the lowest in 20 years and is declining, as Americans have purchased many more pick up trucks, minivans and sport utility vehicles. By 2000, nearly half of the new vehicles purchased in the U.S. fit into these categories.
- Refineries are producing gasoline at nearly full capacity. Any disruption or temporary shut down, whether from natural disaster, accident or routine maintenance, has a rippling effect through regional, and sometimes national, gasoline and petroleum product markets.
- Finally, it is worth noting that prices this spring rose in areas that do not use clean fuels as well as those that do.

For the past 20 years, the United States has benefitted from declining energy prices. As recently as 1998, gasoline was less expensive compared with overall consumer prices than ever before in U.S. history - 60 percent cheaper than the price of gasoline in 1981 - when inflation is factored in. Even today, when adjusted for inflation, the price of gas is much lower than it was during the energy shocks of the 1970's. Today, however, we confront a situation in which supplies of refined products are tighter and prices can be more volatile.

Against this backdrop, the manufacturing cost of RFG II has contributed relatively little to the overall price of gasoline. EPA has estimated that the incremental manufacturing costs of RFG II are four to eight cents per gallon.

As I stated earlier, EPA is concerned that consumers receive the benefits of the RFG program at a reasonable price. Across the country, hundreds of communities are benefitting from

RFG II for pennies per gallon. Since prices peaked in mid-May, wholesale prices have fallen by about 24 cents per gallon. Retail prices at the pump are also easing. Most analysts are predicting no further rise this summer, barring unforeseen problems.

Mr. Chairman, I would like to make one final comment about a recent EPA action. Earlier this week, Administrator Christie Whitman announced that EPA could not approve the State of California's request to waive the federal oxygen content requirement for RFG. After an extensive analysis, the Agency concluded that there is significant uncertainty over the change in emissions that would result from a waiver. California has not clearly demonstrated what the impact on smog would be from a waiver of the oxygen mandate. As the Administrator said, "We cannot grant a waiver for California since there is no clear evidence that a waiver will help California to reduce harmful levels of air pollutants."

The Administration is concerned about the risks of MTBE in drinking water in California and other states. Clean air and clean water are equally important. We do not want to pursue one at the expense of the other. As it currently stands, the Clean Air Act provisions limit the Agency's ability to address these concerns. We are exploring all options and currently assessing the health risks of MTBE. EPA is committed to working with Congress to address concerns about MTBE, while maintaining the air quality and other benefits of the RFG program.

#### Conclusion

In closing, the President's National Energy Policy identifies one of our principal energy challenges as "increasing our energy supplies in ways that protect and improve the environment." Clean burning gasoline is one way to ensure that our energy needs are met while our environment is protected. Clean burning RFG II is providing significant public health benefits to 75 million citizens nationally.

EPA does not believe that the RFG program is the major factor influencing gas prices. EPA estimates the average cost for the production of Phase II RFG ranges from 4 to 8 cents per gallon over conventional gasoline. This Administration is committed to explore whether there are ways to maintain the air quality benefits of RFG while enhancing flexibility for refiners. The Administration is actively working to maximize flexibility and has already provided, through enforcement discretion, a VOC adjustment for ethanol-blended RFG in the upper Midwest. We are also looking for ways to minimize disruptions when the distribution system switches from winter to summer fuel (tank turnover period).

As directed by NEP, EPA is working in consultation with DOE, USDA, and other agencies with the fuels industry and states, to study opportunities to maintain or improve environmental benefits of state and local "boutique fuel" programs while reducing the number of boutique fuels. We see the study as an opportunity to provide maximum flexibility to the fuel production and distribution system.

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

Mr. OSE. Thank you, Mr. Brenner.

I think we have somewhere around 8 minutes before the vote comes. Mr. Otter should be back within 5. We will proceed to questions.

Mr. Cook, does the Energy Information Agency anticipate that refinery capacity in the United States will increase in the next few years? I think the question we are all interested in knowing is whether we're going to be back here next year, hearing different testimony.

Mr. COOK. Well, the latter part is difficult to say. If Iraq stays out of the market for a significant period of time, we'll probably be back before then.

As far as capacity is concerned, actually over most of the 1990's it's been growing at something like an average rate of about 1.4 percent per year, roughly keeping pace with gasoline, total product demand. We expect that to continue. But we don't expect to see any growth in excess capacity. We expect it to stay tight.

Mr. OSE. So, the 97 odd percent utilization, you don't expect that to change very much?

Mr. COOK. Not very much. Now, that's a summertime peak number. There are lots of times during the year, during the winter in particular, the fall, the spring periods, where that utilization rate is much lower.

Mr. OSE. Does the EIA foresee the construction of new refineries or an increase in the capacity of existing refineries, beyond the 1.4 percent?

Mr. COOK. No, we're anticipating no new refineries, but continuing creep at existing refineries, roughly at that pace.

Mr. OSE. So, we're destined to have a very tight alignment between supply and demand?

Mr. COOK. It would appear, yes.

Mr. OSE. If refinery capacity does not keep pace with demand or it aligns very closely with the growth, to the extent that we have excess demand, where does that product have to come from?

Mr. COOK. Well, the seasonal surge typically comes from Europe. Europe has excess capacity for gasoline for a variety of reasons. We tap into that, and have been at near record levels ever since January of this year.

Mr. OSE. So, we end up importing refined or finished product from Europe on a seasonal basis?

Mr. COOK. Well, we do it year-round. Our average imports for last year and recent years has been about 500,000 barrels a day. Canada, the Caribbean, Venezuela, Europe, are baseline exporters. Then the seasonal surge typically comes from Europe.

Mr. OSE. I want to digress for a minute. One of the things I was curious about, reading everybody's testimony last night was, who is a chemist and who is a petroleum engineer and who is not. Are you a chemist?

Mr. COOK. No, I'm an economist.

Mr. OSE. You're an economist. Mr. Brenner, are you a chemist?

Mr. BRENNER. I am also an economist.

Mr. OSE. OK. I like economists. [Laughter.]

Mr. Cook, do you have any thoughts as to why our refinery capacity has essentially, I mean, you've got a report here from 1999

showing capacity has declined from the early 1980's. In other words, in 1981, there were 324 refineries operating, in 1999, there were 159. In 1981, capacity was 18.62 million barrels per day, 1999 capacity is 16.26 barrels per day. Interestingly, the utilization in 1981 was a little bit over 68 percent versus in 1999, 92.7 percent.

Do you have any thoughts as to why the capacity has declined in the last couple of decades?

Mr. COOK. There are a couple of factors. The big drop in the early 1980's was a shakeout of the movement to deregulation. A number of smaller, less efficient plants dropped by the wayside rapidly. Over the rest of the 1980's, I would argue that competition and relatively low margins or spreads seen in the industry over that decade, and since then as well, have discouraged all but the most efficient refineries from remaining in operation.

So you basically have the shakeout of the deregulation period and then a period of low margin increasingly forcing consolidation in the industry.

Mr. OTTER [assuming Chair]. Thank you, Mr. Cook. The chairman's time is up, so I'm going to take over now.

Mr. Cook, your organization has stated in the past that California is different than the rest of the country, and that the prices need to spike fairly high before refineries are actually induced to bring in more supply. Would you explain that?

Mr. COOK. Well, that's not exactly the way we put it. But first of all, California's gasoline is unique, as you know.

Mr. OTTER. Well, I don't want to put words in your mouth, nor in the record. How did you put it?

Mr. COOK. Where did you get that statement?

Mr. OTTER. Gasoline primer.

Mr. COOK. I don't recall the need to spike before product will come in or refiners will crank up. But in many cases that is in fact what happens.

Mr. OTTER. Why does that happen?

Mr. COOK. First of all, you have a unique fuel that's produced only by a handful of refiners on the West Coast. You have a typically tight balance out there, very little difference between capacity at the dozen or so large plants that are out there on the West Coast and summer demand. So again, if anything goes wrong there, given the geographic isolation that California has, and given the unique nature of that fuel, it takes a significant amount of time to provide the market signals and incentives to Gulf Coast producers who don't normally produce that type of gasoline to make a batch, ship it around to the West Coast.

And in the meantime, the price spikes, as folks bid up what is available on the West Coast to meet the near term needs they absolutely have to meet.

Mr. OTTER. It was a gasoline primer update, June 13, 2001, I've got it right here. That was yesterday.

Your statement in that then said, the farther away the necessary relief supplies are, the higher and longer the price spike will be. I think you've answered that.

Can we conclude, then, that the same thing is going to happen for offshore refineries? How high is the spike going to have to go before we induce foreigners to then start making these same blends

for California, for Minnesota, other areas that have a unique blend of gasoline?

Can we conclude, then, I guess my question goes back to Mr. Cook, can we conclude then that foreign refineries are going to have to see a higher spike before they will be induced to make these specialized kinds of fuels?

Mr. COOK. Well, it's relative. Certainly we've seen the same kind of a spike in the Chicago, Milwaukee area, where the singular conditions, extreme conditions, if you will, exist when stocks get low. Now, of course in California and in the Chicago market, stocks are not always low, in which case, when you have a refinery problem you don't get the big spike and you don't have these pressures at work.

Outside of those two areas, the East Coast, for example, has more sources of supply and those relief valves, if you will, Europe, the Caribbean, Venezuela, are closer. Therefore, you won't have to see the same kind of a price signal to get extra supply.

Mr. OTTER. Mr. Cook, you were heard during some of the opening statements by several of the folks that said that perhaps the confusion on the boutique fuels and the whole reason for the boutique fuels was that there was too much freedom for the States to kind of do their own thing. I think the word used was States rights. I suspect that was a referral to the 10th amendment.

Do you agree with that? Does your agency agree with that? Is there too much freedom for the States to pick and choose themselves? Should we have a national gasoline policy?

Mr. COOK. As you may be aware, we're a statistical organization, and I am not authorized to make policy statements. So, I respectfully decline on that one.

Mr. OTTER. Do you analyze your statistics?

Mr. COOK. Sure.

Mr. OTTER. Would an analysis of your statistics, if we have uniform fuel across the United States, in your analysis of your own statistics, would then the price be moderately low, medium, moderately high? And if we then superseded the States' choices and made a national gasoline, would then that stabilize not only supply but also price?

Mr. COOK. Well, let me put it this way, and you might not like the answer, but the way I see it personally is that this market fragmentation, even the capacity issue, become important in the recovery period of gasoline. If you have a capacity limitation and you have a spike, that clearly limits the ability to quickly produce a lot more gasoline and get it into the area. So you could argue that the duration of the spike is affected by the fragmentation and by the capacity.

But the primal causal factors may still be there, and that's low stocks and tight balances at certain points in the year, especially in the spring when you have refinery maintenance. So you're still going to be subject to volatility if, for whatever reason, stocks are low and you go into this period, whether it's one fuel or a bunch of fuels.

Mr. OTTER. I don't necessarily dislike that answer, but, I was hoping for something better.

Mr. Brenner, a new refinery hasn't been built in the United States since 1976, I think that's right, and in fact, since 1981, the number of refineries has been substantially reduced in number, not necessarily in ability to produce. Last January, the Blue Island refinery in Illinois shut down, citing insufficient returns to justify the cost of upgrading to meet new EPA standards. Do you think that the constant cycle of product upgrades has had an effect on the ability of the refining industry and its ability to increase capacity by attracting capitalization funds?

Mr. BRENNER. What we've seen, Representative Otter, is that they have in fact been increasing capacity in the industry, as you heard from the earlier testimony. It's gone up by 1 to 2 percent a year. In addition, they've further increased their ability to produce fuel by adding oxygenates to the fuel, which has also enabled them to produce additional gasoline without having to add a lot of additional capacity at the refinery. Those two factors have enabled them to keep up, although barely keep up, with the increasing demand for gasoline.

So our experience has been that refineries are expanding and in terms of profitability, of course what we've seen over the last few years is that profitability has increased markedly. At this point, the situation that existed in the, say, mid-1990's, where there were concerns about profitability, has changed very dramatically and profit margins are considerably better than they were.

Mr. OTTER. We heard comments during the opening statements, Mr. Brenner, about the unfortunate resolve of the Bush administration to refuse to waive the standard for California. In your estimation, over the last 8 years, is that a unique situation where the administration vis-a-vis the EPA, Army Corps of Engineers, let's name all of the regulators, refuses to grant a waiver to a State or municipality or to a locale?

Mr. BRENNER. No, that's not a unique situation. When we get a request for a waiver such as that, we need to apply the statutory requirement to that request and make a determination. In this case, the Clean Air Act has a fairly narrow framework that we are supposed to use for examining the request, it's to look at whether, by granting the waiver, if we did not grant the waiver, would it interfere with or prevent attainment of the ambient air quality standards.

So we had to look at the proposal from California, look at whether by, whether the oxygenate requirement that they asked a waiver from was interfering with their ability to meet the air quality standard. When we looked at their analysis, what we found was that we could not make that showing that the Clean Air Act requires us to make. Because we could not make that showing, we ended up having to deny the waiver request.

Mr. OTTER. Could you take a guess or be willing to take a guess on how many waivers were denied in the last 8 years?

Mr. BRENNER. We've had very few waiver requests from the oxygenate requirement.

Mr. OTTER. What happened to the one from Boise, ID?

Mr. BRENNER. The Boise, ID one?

Mr. OTTER. I'm being facetious. There was a request, it was denied and then we were threatened with the loss of about \$30 mil-

lion if we continued the course that we were going to go on in Idaho.

I just wanted to make the point that it has not been a unique thing, even in emergency situations, for the administration to adhere itself strongly, root itself in the law of the land, and then use that as guidelines, rather than personalities and whims, isn't that right?

Mr. BRENNER. That's true, Congressman Otter.

Mr. OTTER. OK, thank you very much. Lacking anybody else being here, I guess I will then excuse this panel and thank you very much for being here.

Perhaps the vice chair, in his position, was a little hasty. I have been called by those who have been here longer than 155 days and we would like to retain this panel. So without objection, there being nobody here to object, I'm in charge here. [Laughter.]

Somebody else said that once.

Mr. Cook, on behalf of Chairman Ose, I would like to ask you this question, as a matter for the record. Your organization has released a report today on the possible impacts of blackouts on California refineries. Does the EIA have an estimate of the kind of price hike that could occur in California if there is a major refinery outage?

Mr. COOK. Strictly speaking, we do not have a precise or reliable estimate of that. Not for lack of modeling tools, but for lack of a data base. We don't specifically have a time series relating electrical outages to volume losses and price responses. That said, we do have a lot of data for California and elsewhere on production, stocks, prices, and what have you. We've identified maybe 20 spikes or fluctuations in the last umpty-up years where the trade press reported them due at least in part to outages of whatever type.

When we look at that, we see a spread of from 7 to 52 cents a gallon as the historical response, depending on the condition of the market at the time. By that I mean whether stocks are low, whether it's early in the gasoline season, whether it's an isolated outage or a series of outages with some catalytic event at the end, when stocks have been eroded.

That's basically all we can really say and said in the report at this point. We've done some preliminary regression analysis to try to support that's not in the report. The early results are very consistent with that. We have basically shown that if stocks are low and you have, let's say, a 10 percent gasoline volume loss as a result of maybe a couple hours of outages that brings refineries down and the accumulated gasoline volume loss to that level would be within that range. The results show anywhere from 30 to 60 cents a gallon, depending on whether it's a 10 or 20 percent volume loss.

Mr. OTTER. What would the volume loss be if you had a major blackout, let's say, every 24 hours?

Mr. COOK. That we can't estimate. We really haven't been able to do that.

Mr. OTTER. The committee will go at ease subject to the call of the Chair.

[Recess.]

Mr. OSE [resuming Chair]. Excuse me for a minute.

Mr. Cook, in your written testimony you stated that today's gasoline market comprises many types of gasoline, and that the result has been the creation of gasoline islands. Given not only the production and distribution constraints, but regulatory barriers that you've mentioned, how many of these islands are there?

Mr. COOK. That might have been poor wording. What we intended to imply in term of islands is the California, Chicago and Milwaukee area, that those are the true islands where these markets are tight in the summer time and sit at the end of the pipeline, so to speak, and use a unique product. Which means that if they get tight, they see a price response, then it's going to take a significant period of time and a significant increase to induce additional resupply into that area.

There are something like 14 different types of summer gasolines and what-not. I wouldn't call them all islands. It's a matter of degree. But you don't see the barrier to the flow of products in these other market areas that you see for Chicago and California.

Mr. OSE. When did these unique, since we're not going to call them boutique or islands, when did these unique fuel requirements—how do I phrase this? I'm going to use my language. When did these boutique islands emerge?

Mr. COOK. Well, we would loosely trace that to the Clean Air Act, even more loosely to first, the oxygenated program that began in 1992, and then the reformulated gasoline program in 1995. These were the major drivers of the 14.

Mr. OSE. You say 14, and that's just in those two markets?

Mr. COOK. No, that's nationwide.

Mr. OSE. OK, because we've had different numbers put forth in the different testimony, some as high as 38. But you're referencing 14?

Mr. COOK. Yes, I don't know how they get those. We're not counting grades and this, that and the other.

Mr. OSE. Mr. Brenner, in your testimony you state that actions taken by a growing number of States to ban the use of MTBE as a gasoline additive is the single biggest factor that threatens to proliferate boutique fuel requirements around the country. Why is that?

Mr. BRENNER. Mr. Chairman, the reason is that as the individual States, because of their concerns over water pollution from MTBE, make that decision to move away from continuing to use MTBE in their gasoline, that means they need to work with their fuel suppliers to provide gasoline that does not have MTBE in it. So that gasoline is somewhat different from what may be provided to neighboring States where MTBE may still be a component.

So that's really the classic definition of boutique fuels, where it's for a limited area and it's not a fuel that's necessarily widely used around the country.

Mr. OSE. In the Clean Air Act, or the amendments, more accurately, of 1990, or 1992, I think you just referenced, is MTBE called out specifically, or is a 2 percent oxygenate requirement called out specifically?

Mr. BRENNER. The Clean Air Act amendments of 1990, they do not call out for a specific oxygenate. What they call for is a 2 per-

cent oxygenate requirement, and the suppliers of gasoline have several options in terms of what oxygenate they would choose to use.

Mr. OSE. So, there is some flexibility in the law in terms of unique markets, how they meet their air quality requirements. As long as they meet that 2 percent oxygenate requirement.

Mr. BRENNER. That's right, the 2 percent requirement is in essence a performance standard for the amount of oxygenate to be included. Then, they have a choice of those two how to meet it.

Mr. OSE. Given that, is it more accurate to say that the oxygenate mandate is the biggest factor in creating or proliferating boutique fuels, as opposed to saying it's MTBE?

Mr. BRENNER. No, I would not say that, because the oxygenate requirement, for example, has resulted in reformulated gasoline being used around the country in many different areas, as I mentioned. Thirty-five percent of the fuel supply now is reformulated gasoline. I would not think of something that's 35 percent of the gasoline supply as being a boutique fuel.

But what I was referring to in my testimony is the fact that in a number of areas, States are removing one of the oxygenate choices and removing MTBE as one of the oxygenate's choices. That is what is beginning to create a proliferation of gasoline. But it's for understandable reasons, they're concerned about their water supplies.

Mr. OSE. I'd like to followup, but my time has expired. Mr. Waxman for 5 minutes.

Mr. WAXMAN. Thank you very much, Mr. Chairman.

Mr. Brenner, yesterday the administration rejected California's request to waive the Federal oxygenate requirement for gasoline. This decision was so incomprehensible on the merits that I awarded President Bush a golden jackpot for that decision, as I mentioned in my opening statement.

In effect, the President had a simple choice. He could grant California's request, which was what every member of the delegation urged. This would result in cleaner gasoline and lower prices for California consumers, or he could deny the waiver, which would mean more pollution and higher cost for California consumers but would provide an enormous windfall for ethanol companies like Archer Daniels Midland that gave hundreds of thousands of dollars in campaign contributions.

The President chose more pollution at higher cost for California. Earlier this year, EPA was prepared to grant the California waiver. EPA even prepared a proposal to do so. And I've obtained a copy of this proposal, and I'm sending Administrator Whitman a letter today asking her to explain this last minute reversal in their decision. I'm releasing both the letter and the proposal to the press. I'd also like to submit them, Mr. Chairman, for the record.

Mr. OSE. Without objection.

[The information referred to follows:]

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**Congress of the United States**  
 House of Representatives

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 WASHINGTON, DC 20515-6143

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June 14, 2001

HENRY A. WAXMAN, CALIFORNIA,  
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 BERNARD SANDERS, VERMONT,  
 INDEPENDENT

The Honorable Christine Todd Whitman  
 Administrator  
 U.S. Environmental Protection Agency  
 1200 Pennsylvania Avenue, NW  
 Washington, D.C. 20460

Dear Administrator Whitman:

This week, the Bush Administration denied California's request for a waiver from the oxygenate requirement under the federal reformulated gasoline (RFG) program. You explained that the waiver was inappropriate because "there is no clear evidence that a waiver will help California to reduce harmful levels of air pollutants."<sup>1</sup>

I was surprised by your statement. It not only appears to be directly contradicted by conclusions EPA experts reached earlier this year, but by your own recommendation to President Bush in support of the waiver. I noted your views in a May 3, 2001, letter I sent to President Bush, and I'm enclosing a copy of that letter for your convenience.

I am also attaching to this letter a recommendation to grant California a waiver from the 2% oxygenate requirement that your agency sent to the White House in January 2001 at the end of the Clinton Administration. This recommendation was the result of a lengthy review by EPA's technical and professional staff.

In the recommendation, EPA's experts reached exactly the opposite conclusion that you announced earlier this week. EPA's experts found in January that denying the waiver would interfere with California's efforts to meet the National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter (PM). Specifically, the recommendation states:

We conclude that compliance with the 2.0 weight percent oxygen content requirement for RFG would interfere with attainment of the NAAQS for ozone and PM in the RFG areas in the State.

<sup>1</sup>EPA Press Release (June 12, 2001).

The EPA recommendation would have granted California "a waiver by allowing a year-round average oxygen level of 1.0 weight percent, through the end of 2004." The 1% oxygenate standard recommended by EPA is the level of oxygenate that EPA estimated would remain in the California fuel supply in the absence of any federal oxygenate requirement. EPA stated that this waiver "will enable California to achieve even greater reductions in NOx emissions." Additionally, according to EPA's recommendation, the waiver "will have an effect on emissions other than NOx, and these overall effects support the conclusion that a partial waiver would aid California in attaining the ozone and particulate matter NAAQS."

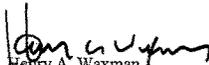
EPA further concluded that the waiver would allow "the flexibility for the state to achieve the greatest additional NOx reductions possible."

Starting in 2003, California has banned the use of methyl tertiary butyl ether (MTBE) in gasoline because MTBE contaminates drinking water wells. Because California's waiver request was denied, California will be forced to use the only practical alternative, ethanol. As EPA found in the recommendation, ethanol use will not reduce air pollution. But it is more expensive than MTBE and is in short supply. In fact, industry officials estimate that it will take about one-third of current U.S. production of ethanol for California to meet the federal oxygenate requirements. Shortages of ethanol could cause gas prices to rise by 50 cents a gallon, according to California Governor Gray Davis.

What's more, the decision to deny the waiver will cause "balkanization" of the fuel supply in California, which is completely contradictory to the goals of the Administration's National Energy Policy. Because California will not receive a waiver, oil refiners will have to supply California with at least two different fuels. In areas that are classified as severe or extreme nonattainment areas under the Clean Air Act, like Los Angeles, oil refineries will have to add ethanol to meet the 2% oxygenate requirements of the Clean Air Act. But in other parts of the state, oil refineries only have to meet California's clean fuel standards, which do not require the addition of ethanol. Moreover, gasoline with ethanol must be segregated from nonoxygenated gasoline throughout the distribution process, and large quantities of ethanol will have to be imported from halfway across the country.

In light of this information, I am completely baffled by the Administration's decision to deny California's request. I am requesting that you immediately provide me with the new information developed since January 2001 that forms the basis for the Administration's reversal on this important issue. Please provide this information no later than June 21, 2001.

Sincerely,

  
Henry A. Waxman  
Ranking Minority Member

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**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-0529**

HENRY A. WAXMAN  
29TH DISTRICT, CALIFORNIA  
May 3, 2001

RANKING MEMBER  
COMMITTEE ON GOVERNMENT  
REFORM  
MEMBER  
COMMITTEE ON COMMERCE  
DEMOCRATIC STEERING COMMITTEE

President George W. Bush  
The White House  
1600 Pennsylvania Ave, NW  
Washington, DC 20500

Dear Mr. President:

I have just learned that the White House has directed the U.S. Environmental Protection Agency (EPA) to deny the state of California's request for a waiver of the Clean Air Act's oxygenate requirement within federal reformulated gas areas in California. Apparently, EPA has been directed to make this announcement imminently.

This action is simply inexplicable, so I wanted to bring it to your immediate attention.

MTBE has been used to meet the oxygenate requirement in reformulated gasoline in California. Unfortunately, MTBE has polluted California's groundwater and surface water resources, including important drinking water resources and Lake Tahoe. Use of MTBE has also inhibited the maximization of air quality improvement within the State.

Recognizing these environmental problems, Governor Davis has acted to phase out MTBE by January 1, 2003. At the same time, the Governor asked EPA to waive the oxygenate requirement for reformulated gasoline. The Governor requested this waiver because without it the cost of gasoline to consumers could rise dramatically.

The EPA has been presented with exhaustive scientific, technical, and analytical documentation supporting the environmental and economic benefits to California that relief from the oxygenate mandate would provide. A waiver is critical to California's commitment to protect public health and the environment and avoid compounding its energy problems.

On April 6, 2001, every member of the California House delegation -- Republicans and Democrats alike -- requested that Administrator Whitman grant California's waiver request. It is my understanding that although the science warrants granting of the waiver and Administrator Whitman explicitly wishes to grant the waiver, the White House has directed EPA to deny the request.

California is currently experiencing an unprecedented energy crisis. Denial of the oxygenate waiver will create a second energy crisis. The California Energy Commission has

The Honorable George W. Bush  
May 3, 2001  
Page 2

estimated that phasing out MTBE without a waiver from the federal government could cost consumers almost \$1 billion each year.

Many in California believe that your Administration is trying to take advantage of California's energy crisis. Rather than providing needed relief to California from skyrocketing energy prices, they fear that your Administration is using the crisis to provide a basis for drilling in the Arctic National Wildlife Refuge and other environmentally sensitive areas, as well as repealing important parts of the Clean Air Act, such as the requirements that new and modified facilities install modern pollution controls. They point to comments such as those of Myron Ebell of the Competitive Enterprise Institute, who said on March 27, 2001:

The great thing about politics is how scared legislators get by turns of events. . . . The little bit we've seen in California is just a foretaste of what is likely to happen this summer. You can scare these guys into doing almost anything if you pick the right moment. The key will be if the [GOP] leadership picks the right moment.

Perhaps some may believe subjecting California to a second energy crisis may help gain acceptance of objectionable energy policy provisions. But such an approach would be so transparent that it would be difficult to believe that it could be seriously considered.

Mr. President, California is part of the United States. It deserves protection under the law just as any other state does. I urge you to personally review this matter and to approve Governor Whitman's recommendation.

Sincerely,



Henry A. Waxman  
Member of Congress

ENVIRONMENTAL PROTECTION AGENCY

MHS  
ED: SLS  
ED 2/0

40 CFR Part 80

[FRL - - ]

Regulation of Fuel and Fuel Additives: Waiver of the Reformulated Gasoline Oxygen Content Requirement for California Covered Areas

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Proposed Rulemaking

SUMMARY: Today's action proposes to grant, in part, a request from the State of California for a waiver of the federal reformulated gasoline (RFG) program's 2.0 percent oxygen content requirement. We are proposing a year-round average oxygen content requirement of 1.0 weight percent for gasoline sold in California's federal RFG areas. These areas are the Sacramento Metropolitan Air Quality Management District, the South Coast Air Quality Management District, and San Diego County. Based on a lack of adequate information regarding the appropriateness of a waiver as the automobile fleet turns over to newer technologies, the waiver would terminate at the end of 2004. Any petition to extend the waiver would be fully and carefully considered by EPA.

DATES: Comments. Submit comments on today's proposal on or before [50 days after date of publication in the FEDERAL REGISTER]. Comments and data may be submitted by electronic mail (e-mail) to: [g-and-r-docket@epa.gov](mailto:g-and-r-docket@epa.gov). Electronic comments must be submitted as an ASCII file to avoid the use of special characters and encryption problems and will also be accepted on disks in WordPerfect® version 5.1, 6.1, or Corel 8 file format. All comments and data submitted in electronic form must note the docket number: A-2000-10. No confidential business

information (CBI) should be submitted by e-mail. Electronic comments may be filed online at many Federal Depository Libraries.

Commenters wishing to submit proprietary information for consideration must clearly distinguish such information from other comments and label it as CBI. Send submissions containing such proprietary information directly to the following address, and not to the public docket, to ensure that proprietary information is not inadvertently placed in the docket: Attention: Mr. Barry Garelick (6406J); U.S. Environmental Protection Agency, Office of Transportation and Air Quality, 501 - 3<sup>rd</sup> Street, NW; Washington, DC 20001. The EPA will disclose information identified as CBI only to the extent allowed by the procedures set forth in 40 CFR part 2. If no claim of confidentiality accompanies a submission when it is received by the EPA, the information may be made available to the public without further notice to the commenter.

Public Hearing. A public hearing will be held on [20 days after date of publication in the FEDERAL REGISTER]. Persons wishing to testify at a public hearing must contact Barry Garelick at (202) 564-9028, and submit copies of their testimony to the docket and to Barry Garelick at the addresses below, no later than 10 days prior to the hearing. After the hearing, the docket for this rulemaking will remain open for an additional 30 days to receive comments.

ADDRESSES: Docket. Docket No. A-2000-10 contains the information relevant to this proposal. The Docket is located at the U.S. Environmental Protection Agency, Air Docket Section, Room M-1500, 401 M Street, SW, Washington, D.C. 20460. The docket is open for public inspection from 8:00 a.m. until 5:30 p.m., Monday through Friday, except on Federal holidays. A reasonable fee may be charged for photocopying services.

Comments. Any person wishing to submit comments (and/or testimony if a hearing is held) should send them (in duplicate, if possible) to docket number A-2000-10, by U.S. Postal Service to: Air and Radiation Docket and Information Center (6102), U.S. EPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460; or in person or by courier to: U.S. Environmental Protection Agency, Air Docket Section, Room M-1500, 401 M Street, SW, Washington, D.C. 20460. A separate copy of all comments (and/or testimony) should also be sent to Barry Garelick (6406J), Environmental Protection Specialist, U.S. Environmental Protection Agency, Office of Transportation and Air Quality, Transportation and Regional Programs, 501 - 3rd Street, NW, Washington, D.C. 20001, telephone number (202) 564-9028, electronic mail address: [garelick.barry@epa.gov](mailto:garelick.barry@epa.gov).

Public Hearing. A public hearing will be held at U.S. Environmental Protection Agency, Region 9, 75 Hawthorne Street, San Francisco, CA 94105 beginning at 10:00 AM. Persons interested in presenting oral testimony or inquiring as to whether a hearing is to be held should contact Barry Garelick, Transportation and Regional Programs Division, Office of Transportation and Air Quality, U.S. Environmental Protection Agency, 501 - 3<sup>rd</sup> St, NW, Washington, DC 20001, telephone number (202) 564-9028, at least 2 days in advance of the public hearing. Persons interested in attending the public hearing must also call Barry Garelick to verify the time, date, and location of the hearing. The public hearing will provide interested parties the opportunity to present data, views, or arguments concerning these proposed emission standards.

**FOR FURTHER INFORMATION :** For further information about this proposed rule, to request a public hearing or inquire about whether a public hearing will be held, or to verify the

time, date and location of a public hearing, contact Barry Garelick, Environmental Protection Specialist, Office of Transportation and Air Quality, Transportation and Regional Programs Division, at (202) 564-9028. To request a public hearing, contact Barry Garelick, (202) 564-9028 no later than [10 days after FR publication date].

**SUPPLEMENTARY INFORMATION:**

World Wide Web (WWW). In addition to being available in the docket, an electronic copy of today's proposed rule is also available on the WWW. Following signature, a copy of the rule will be placed on the Office of Transportation and Air Quality's web site for newly proposed or promulgated rules at <http://www.epa.gov/otaq/rfg.htm>.

Regulated Entities. Regulated categories and entities potentially affected by this action include:

Category	SIC	NAICS	Examples of regulated entities
Refining	2911	32411	Refiners, importers, oxygenate producers, and oxygenate blenders of reformulated gasoline

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could be potentially regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether an entity is regulated by this action, one should carefully examine the RFG provisions at 40 CFR Part 80, particularly §80.41 dealing specifically with the RFG standards. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding "FOR FURTHER INFORMATION CONTACT" section.

The remainder of this proposed rule is organized as follows:

**I. SUMMARY OF DECISION AND BACKGROUND**

- A. General findings and conclusions
  - 1. Summary of the basis for today's proposed action
  - 2. Summary of today's proposed action
  - 3. Description of partial waiver proposal
- B. California's request for a waiver from the oxygen requirement
- C. Uniqueness of waiver to California

**II. EPA'S EVALUATION OF CALIFORNIA'S PETITION**

- A. Need for additional NOx emission reductions
- B. Effect of waiver on total emission changes

**III. CONCLUSIONS AND DECISIONS**

- A. Importance of additional NOx emissions reductions with respect to EPA's decision
- B. Rationale for granting a partial waiver
- C. Regulatory approach

**IV. ADMINISTRATIVE REQUIREMENTS**

- A. Executive Order 12866
- B. Executive Order 13132 (Federalism)

- C. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments
- D. Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 USC 601 et. seq.
- E. Paperwork Reduction Act
- F. Unfunded Mandates Reform Act
- G. Executive Order 13045: Children's Health Protection
- H. National Technology Transfer and Advancement Act of 1995 (NTTAA)
- I. Statutory Authority

**I. SUMMARY OF DECISION AND BACKGROUND**

**A. General findings and conclusions**

**1. Summary of the basis for today's proposed action**

Section 211(k)(2)(B) of the Act, 42 U.S.C. § 7545(k)(2)(B), allows EPA to waive compliance with the oxygen content requirements under certain circumstances. Section 211(k)(2)(B) reads:

The oxygen content of the gasoline shall equal or exceed 2.0 percent by weight (subject to a testing tolerance established by the Administrator) except as otherwise required by this Act. The Administrator may waive, in whole or in part, the application of this subparagraph for any ozone nonattainment area upon a determination by the Administrator that compliance with such requirement would

prevent or interfere with attainment by the area of a national primary ambient air quality standard.

EPA has authority under this section to waive the oxygen content requirement, to the extent reasonably necessary, where the EPA determines, that compliance with the oxygen content requirement would interfere with attainment of the primary National Ambient Air Quality Standard (NAAQS) in an ozone nonattainment area. In evaluating California's request for waiver of the oxygen requirement, EPA has analyzed the need for additional NOx reductions in California, the impact of oxygen content on emissions, and the likely composition of gasoline in the relevant nonattainment area(s) with and without a waiver of the oxygen content requirement. This analysis has allowed EPA to assess how flexibility resulting from a waiver will assist California in attaining the ozone and particulate matter NAAQS.

## **2. Summary of today's proposed action**

We are proposing today to grant a partial waiver of the reformulated gasoline (RFG) oxygen content requirement for California gasoline subject to the federal RFG requirement. EPA is proposing to waive, in part, the oxygen content requirement for the federal RFG covered areas in California, under section 211(k)(2)(B) of the CAA. This partial waiver would reduce the required year-round oxygen level in federal RFG for California gasoline to 1.0 percent by weight, through the end of 2004. Our evaluation has revealed the following key points:

- There is a shortfall of NOx reductions in the South Coast Air Quality Management District (SCAQMD) and Sacramento Metropolitan Air Quality

Management District (SMAQMD), and, thus, additional NOx reductions are needed in these regions;

- California gasoline currently subject to California and federal RFG requirements including the federal oxygen content requirement is required to, and does, achieve significant NOx reductions in these areas and would continue to do so regardless of the type of oxygenate;
- Achieving greater NOx reductions is also possible, and affording refiners additional flexibility in the fuel formulation process by a partial waiver will enable California to achieve even greater reductions in NOx emissions;
- These additional NOx reductions resulting from the granting of a partial waiver will work to alleviate the NOx shortfall and therefore provide important additional emissions reductions needed to help California attain and maintain the ozone and particulate matter NAAQS, and
- A partial waiver will have an effect on emissions other than NOx, and these overall effects support the conclusion that a partial waiver would aid California in attaining the ozone and particulate matter NAAQS.
- EPA is proposing to condition this waiver on a demonstration by the California Air Resources Board (CARB) that it will take enforceable action to make sure that these additional NOx reductions are in fact realized. EPA is proposing that CARB submit a demonstration to EPA, within six months of issuance of a final rule granting a waiver, of the actions it plans to take to ensure that the additional

NOx reductions expected to result from the issuance of the waiver are in fact achieved.

- As the fleet turns over to vehicles with newer technologies, such as improved operation and catalysts, the ability to achieve additional NOx reductions from this formulation flexibility may disappear or become less significant. At this time, EPA does not have adequate information to fully evaluate whether a waiver would continue to be appropriate as the fleet turns over to vehicles with newer technologies. Therefore, this waiver would only apply through the end of 2004. Prior to that date, CARB may seek an extension of the waiver by demonstrating that compliance with the oxygen content requirement after that date would continue to prevent or interfere with attainment of the NAAQS.

We note that although the partial waiver would result in greater NOx reduction in California, ethanol has played and will continue to play a major role in the production of RFG since the program began in 1995. Ethanol helps in the production of octane quality, often allowing for decreased use of aromatic compounds, for example, that tend to increase unhealthy vehicle emissions. Ethanol also dilutes the other components of gasoline, such as sulfur, olefins, and benzene, that can contribute to vehicle emissions. As we discuss in Section I.C. below, the uniqueness of California fuel and the refinery configurations and capacity in California provides an opportunity for California to achieve greater NOx benefits with a limited use of oxygen. We believe that it is extremely unlikely that other states could obtain greater NOx benefits with less oxygen.

Finally, as discussed in detail in Appendix B of the Technical Support Document for this proposed Rulemaking (see Docket A-2000-10, Document Number II-B-2), the modeling underlying EPA's evaluation of California's petition relies in part on the reasonable expectation that California's ban on the use of MTBE in gasoline will take effect according to the schedule currently embodied in California law. Because EPA can identify no convincing evidence that California's ban will not take effect, and because the basis for California's ban is generally consistent with EPA's findings regarding the risks associated with MTBE contamination, we believe that this is appropriate. EPA is currently working on a proposed rulemaking under Section 6 of the Toxic Substances Control Act (TSCA) to eliminate or significantly reduce MTBE in gasoline.

### 3. Description of partial waiver proposal

We are proposing today to grant the State of California a partial waiver of the oxygen content requirement. We are proposing to grant a waiver by allowing a year-round average oxygen level of 1.0 weight percent, through the end of 2004. A partial waiver approach is appropriate because we expect that a significant amount of California summertime gasoline will continue to be oxygenated even if a waiver is granted. This is based on the refinery modeling performed to evaluate how gasoline would be reformulated if oxygen content is not required. Among the various scenarios we considered in the refinery modeling, the extended year-round oxygen averages range from 0.9 percent to 2.0 percent by weight oxygen with most scenarios yielding oxygen levels around 1.0 percent. This reflects a variety of factors, indicating that most of the federal RFG in California will continue to be oxygenated under the California wintertime

oxygenated fuel program, a wintertime program designed to reduce wintertime carbon monoxide emissions. The level of the proposed waiver is intended to maximize the potential for additional NOx reductions that the State of California can gain by providing this flexibility to refiners.

The analysis supporting this proposal shows that refiners are currently achieving NOx reductions for gasoline subject to both CARB and EPA RFG requirements but that if refiners are given additional flexibility to reformulate gasoline subject to CARB's RFG requirements, by reducing the requirement to add oxygen to the gasoline, then refiners can be expected to produce gasoline that achieves more reductions in NOx than is otherwise required under CARB's regulations. In effect, this additional flexibility is expected to lead to voluntary over compliance with CARB's current NOx reduction requirements. This is based in large part on refinery modeling that is unique to California, taking into account the choices refiners can reasonably be expected to make to most economically produce gasoline subject to CARB's current RFG requirements. This analysis is not itself a guarantee, however, that these additional NOx reductions will in fact be achieved if a waiver is granted.

Since the achievement of the additional NOx reductions is the underlying premise for the waiver, EPA is proposing to grant this waiver under condition that California must demonstrate that it will take enforceable action to make sure that these additional NOx reductions are in fact achieved. EPA is proposing that CARB submit a demonstration to EPA, within six months of issuance of a final rule granting a waiver, of a schedule for specifying actions it plans to take to ensure that the additional NOx reductions expected to result from the issuance of the waiver are in fact achieved.

Finally, as the fleet turns over to vehicles with newer technologies, such as improved operation and catalysts, the ability to achieve additional NOx reductions from this formulation flexibility may disappear or become less significant. At this time, EPA does not have adequate information to fully evaluate whether a waiver would continue to be appropriate as the fleet turns over to vehicles with newer technologies. Therefore, this waiver only applies through the end of 2004. Prior to that date, CARB may seek an extension of the waiver by demonstrating that compliance with the oxygen content requirement after that date would continue to prevent or interfere with attainment of the NAAQS. EPA will fully and carefully evaluate any such request for an extension, and will make a decision regarding such an extension based on all of the evidence available at that time.

**B. California's request for a waiver from the oxygen requirement**

In a letter dated April 12, 1999 from California Governor Gray Davis to Administrator Browner, California officially requested a waiver from the federal oxygen requirement for reformulated gasoline, under Section 211(k)(2)(B). Under the Clean Air Act, EPA may waive the oxygen mandate, in whole or in part, "...upon a determination by the Administrator that compliance with such requirement would prevent or interfere with the attainment by the area of a national primary ambient air quality standard [NAAQS]." (Filed in docket A-2000-10, document number H.D.-1; also available at <http://www.arb.ca.gov/ehg/Oxy/wav/041299.pdf>) The April 12, 1999 submittal stated that "the ARB will be revising its CaRFG program this year, and continuing the oxygen mandate will make it more difficult to maintain the emission reductions benefits needed for California's SIP." The submittal did not, however, contain the technical

analysis to support the statement that the oxygen requirement might actually prevent or interfere with the attainment of the NAAQS in California. As such, the Agency believed that the request submitted by California on April 12, 1999 did not provide enough detail about the underlying analyses upon which the request was premised to allow EPA to make a careful and fully informed decision on the request.

Subsequent submittals from CARB provided additional information necessary to evaluate California's request for a waiver from the oxygen requirement. Upon receipt of information that CARB submitted on February 7, 2000, EPA believed it had sufficient information upon which to fully evaluate California's waiver request. In order to make the determination of prevention or interference with a NAAQS as required by Section 211(k)(2)(B) of the Clean Air Act, the Agency then began an independent evaluation of the data, modeling, and other information submitted by California in support of its request for a waiver from the federal RFG oxygen requirement.

#### **C. Uniqueness of waiver to California**

Our conclusions regarding what kind of mixed pool of oxygenated RFG and non-oxygenated RFG would be produced if refiners had the additional flexibility provided by a waiver, and how such a mixed pool of oxygenated RFG and non-oxygenated RFG would affect California emission inventories, rely on several very specific considerations associated with the unique feature of California's gasoline market. (A detailed discussion of the mixed pool is provided in Section IV.B. of the Technical Support Document in Docket A-2000-10, Document Number II-B-2). These unique features in the California gasoline market include 1) difference

between California's gasoline standards and federal gasoline standards; 2) difference between California compliance options versus federal compliance options; and 3) the very specific way in which California refineries are configured to make motor fuels for California compared to refiners that produce RFG for the rest of the country. These differences are discussed below.

California has its own set of state reformulated gasoline (CaRFG) emissions standards which have been adopted by the state and which are different than the federal standards. EPA has, however, recognized that California's standards are expected to achieve at least as good reductions in emissions than the federal RFG standards. California's standards for NOx and toxics are more stringent than the corresponding federal standards and at least as stringent for VOC emissions. In exempting California gasoline from several aspects of EPA's RFG enforcement provisions, we have previously recognized that the California standards result in the production of gasoline that meets or exceeds most of the emissions and content requirements of federal RFG.<sup>1</sup>

In addition to having different standards, California has built its own Predictive Model which is used by regulated parties to comply with California's own unique standards. (A more detailed discussion of California's model can be found in Section IV.B. of the Technical Support Document.) The California predictive model allows for the use of several different compliance options including a flat limit approach, an averaging approach, and any alternative recipe that can be shown to produce essentially equivalent or better emissions performance compared to a certain set of California's fuel specifications. As we discuss in Section II.B. of this document

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<sup>1</sup> 64 FR 49992, September 15, 1999: Extension of California Enforcement Exemptions for Reformulated Gasoline Beyond December 31, 1999. This FR notice contains an explanation of why California's standards are more stringent.

(and in greater detail in Section IV.B. of the Technical Support Document), California has built a new model for Phase 3 gasoline compliance. The Phase 3 model is substantially different from the Phase 2 model and consists of eighteen exhaust sub-models representing six pollutants and three technology classes. The model also allows for an evaporative emissions compliance option which allows refiners to determine hydrocarbon emissions equivalency based on a combination of exhaust and evaporative emissions. The model also introduces a CO credit which recognizes the ozone-forming potential of CO.

Finally, unlike gasoline sold in most other RFG areas, California RFG is almost entirely produced by refiners within the state. The California refining industry is not configured the same way as the rest of the country's refining industry. Thus, given the task of meeting California Phase 3 standards with and without oxygen, the California refining industry will reformulate the fuels made in California in a very California-specific fashion. Thus, it would not be possible to conclude that the reformulation decisions made by California refiners to meet CARB's unique requirements and the emissions effects of these reformulation decisions are applicable to any other RFG area outside of California.

For these reasons, California presents a unique situation with standards different than other RFG areas, compliance approaches not applicable to other RFG areas, and refineries that formulate fuel differently than the rest of the country. Therefore the additional reductions in NOx emissions or other inventory changes expected in California from increased flexibility in oxygenate use are based on factors unique to California. It would not be correct to project that they would also occur in any other RFG areas outside of California.

## II. EPA'S EVALUATION OF CALIFORNIA'S PETITION

We conclude that compliance with the 2.0 weight percent oxygen content requirement for RFG would interfere with attainment of the NAAQS for ozone and PM in the RFG areas in the State. EPA has considered the data and other analyses submitted by CARB in support of its request for a waiver. We have also considered information submitted by other interested parties (see Appendix C of the Technical Support Document for this rulemaking in Docket A-2000-10, Document Number II-B-2). We conducted further analyses based on CARB's submittals, the results of which have led to our decision to grant the waiver, and are described below. (A detailed discussion of the technical analysis is provided in the above referenced Technical Support Document).

### A. Need for additional NOx emission reductions

The basis for California's waiver request rests on CARB's assertion that additional NOx reductions are needed in California. CARB claims that the South Coast Air Quality Management District (SCAQMD) and Sacramento Metropolitan Air Quality Management District (SMAQMD) need additional NOx reductions beyond the commitments made in their recently approved State Implementation Plans (SIPs) for these areas to attain the National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter. In fact, there is a shortfall of NOx reductions needed by 4 tons/day in the SCAQMD and 4 tons/day in the

Sacramento RFG area, which both districts have committed to EPA to make up through additional control measures.<sup>2</sup>

In addition, we believe that even though San Diego County does not show emission reduction shortfalls of NO<sub>x</sub>, the waiver should be granted for this area as well because 1) additional NO<sub>x</sub> reductions would help to ensure that the San Diego County area would continue to meet the NAAQS, 2) waiver of the oxygen requirement in San Diego County would provide additional NO<sub>x</sub> reductions in SCAQMD from gasoline purchased by commuters within San Diego County and consumed within SCAQMD, and 3) excluding San Diego County from a waiver could potentially cause severe disruptions in the production and distribution of gasoline in California.

Finally, we are proposing that the waiver would also be applicable in the San Joaquin Valley once it becomes an RFG area (it was re-designated as a "serious" non-attainment area for ozone). We believe that the waiver should extend to the San Joaquin Valley RFG area since we would expect similar NO<sub>x</sub> reductions there and because of the potential need for NO<sub>x</sub> reductions in that area to attain the ozone and particulate matter NAAQS, as well as the potential for disruption to the distribution system in California if the area is excluded from the waiver. We solicit comment on our proposal to extend the waiver to the San Joaquin Valley when it becomes a federal RFG area.

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<sup>2</sup> As discussed in the Technical Support Document (see Docket A-2000-10, Document Number II-B-2) the NO<sub>x</sub> shortfall is calculated based on the "carrying capacity" for each region (i.e., the maximum amount of NO<sub>x</sub> emissions that can be sustained that will allow attainment of the ozone and PM NAAQS) which is derived through Urban Airshed Modeling (UAM) simulations. The NO<sub>x</sub> shortfall for a specific region is the difference between the amount of NO<sub>x</sub> projected to be emitted after implementation of the various control measures in a SIP, and the carrying capacity for that region.

### B. Effect of waiver on total emission changes

EPA's evaluation of the effect of a waiver on changes in NOx, VOC, and CO inventories are based upon refinery modeling predictions of the most economic levels of oxygen use for both a waiver and non-waiver scenario. We considered various possible scenarios that were derived from modeling, as discussed in detail in Section IV.C. 2. of the Technical Support Document. We estimate that the effect on NOx, VOC and CO inventories (taking into account nonroad effects) in the South Coast Air Quality Management District for the various scenarios range from 5 to 10 tons/day additional reduction in NOx, 4 to 16 tons/day additional reduction in VOC, and 130 to 300 tons/day increase in CO. It is important to note that the additional decreases in NOx and VOC that would occur are in addition to those under the California RFG Phase 3 regulations if a waiver were not granted.

Using oxygen usage patterns resulting from our refinery analysis, we would expect that the additional NOx emissions benefits would occur as refiners use the additional flexibility provided by a waiver of the oxygen content requirement. Our analysis indicates that year-round average oxygen levels of approximately 1.0 weight percent, as defined by the market shares estimated for the scenarios studied, would lead to the greatest potential NOx reductions. Additionally, EPA feels generally confident that based on the photochemical relationship between CO and species of VOC that are emitted from automobiles, that the CO increases

associated with a waiver are offset by the decreases in VOC, based on the prevalence and magnitude of VOC reductions in the fuel scenarios that we examined.<sup>3</sup>

### III. CONCLUSIONS AND DECISIONS

#### A. Importance of additional NOx emissions reductions with respect to EPA's decision

Both the SCAQMD and SMAQMD need additional NOx reductions in order to achieve both the ozone and particulate matter National Ambient Air Quality Standards (NAAQS). Both areas currently have an emission reduction shortfall of 4 tons/day of NOx.

Additional reductions in NOx will bring these regions closer to meeting the respective NOx targets, and reductions in VOC, as discussed in Section II.B will serve to offset the ozone impact of any CO increase associated with the waiver. Granting the waiver, however, will not by itself ensure that RFG in California achieves more NOx reductions than it otherwise would under California and federal regulations. California will be required to demonstrate how it will ensure that the additional NOx reductions made possible by the waiver will in fact be achieved.

#### B. Rationale for granting a partial waiver

We are proposing to grant a partial waiver because all refining scenarios we have modeled to evaluate how gasoline would be reformulated in a waiver situation predict that a significant amount of California gasoline will continue to be oxygenated even if a waiver is

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<sup>3</sup> See EPA's proposal to adjust the VOC performance standard for RFG that contains 10 volume percent ethanol. (65 FR 42940; July 12, 2000). The Technical Support Document for the referenced July 12, 2000 rulemaking provides further discussion of the relationship and is available in Docket A-99-32, Document Number II-B-2.

granted. Additionally, most of the federal RFG in California will continue to be oxygenated under the California wintertime oxygenated fuel program which is designed to reduce wintertime carbon monoxide emissions.<sup>4</sup> Among the various scenarios we considered, the expected year-round oxygen averages range from 0.9 percent to 2.0 percent by weight oxygen with most scenarios yielding average oxygen levels around 1.0 percent. These ranges are based upon refinery modeling predictions of the most economic levels of oxygen use for a waiver scenario considering various possible scenarios (see Section IV.C.2. of the previously cited Technical Support Document for this proposed rulemaking).

Under section 211(k)(2)(B) of the Clean Air Act, Congress directed EPA to include a 2.0 weight percent oxygen requirement as part of RFG program. Congress also allowed EPA to waive this requirement in whole or in part, but only if EPA determines that compliance with the oxygen requirement would interfere with the state's ability to meet a NAAQS. (See Appendix A of the previously cited Technical Support Document for a full discussion of EPA's authority to waive the oxygen requirement). All of our modeling suggests that a significant amount of gasoline will continue to be oxygenated should a waiver of the requirement be granted. That portion of the gasoline pool that continues to be oxygenated under a waiver scenario could not possibly interfere with attainment of a NAAQS since it would be oxygenated with or without a waiver. Furthermore, based on our analyses of refinery modeling, we conclude that no cases with year-round oxygen levels much lower than 1 percent would actually occur with a waiver.

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<sup>4</sup> To help reduce wintertime carbon monoxide emissions, for four months of the year, California requires that gasoline marketed in the Los Angeles area during the wintertime contain 2.0 percent oxygen by weight. This requirement continues even if a waiver from the RFG oxygen requirement is granted.

Therefore, we are proposing to grant a partial waiver that would encompass a year-round oxygen level reflecting the approximate level of oxygen use that maximizes the potential for additional reductions in NOx.

The highest level of potential additional NOx reductions in the refining scenarios we have modeled is associated with a year-round oxygen average around 1.0 percent by weight (See Table 33 in Section IV.E of the Technical Support Document). We believe this to be the most appropriate oxygen level for a partial waiver because it allows the flexibility for the state to achieve the greatest additional NOx reductions possible. The level of the proposed waiver is therefore designed to maximize the additional NOx reductions that can be achieved by RFG in California. The waiver to a year-round average oxygen content of 1.0 percent by weight will essentially require that ethanol be used at a level equivalent to 1.0 percent oxygen by weight on an annual average (about 3 percent by volume on average).

Finally, we note here that the NOx/VOC/CO benefits and disbenefits derived in this analysis are completely dependent upon California-specific state fuel standards and upon the California-specific way California refiners are expected to reformulate their fuels in light of these standards. The refinery modeling does not provide a basis to determine whether similar inventory changes would occur in other states served by other refiners and subject to different gasoline standards.

#### C. Regulatory approach

We are proposing today to grant the State of California a partial waiver of the oxygen requirement for California gasoline subject to this federal RFG requirement. The waiver would

be granted to require a year-round oxygen level of 1.0 weight percent in federal RFG, rather than the currently required 2.0 weight percent. The waiver would also eliminate the per-gallon oxygen minimum in federal RFG areas in California.

The analysis supporting this proposal shows that if refiners are currently achieving NOx reductions for gasoline subject to both CARB and EPA's RFG requirements, but that if refiners are also given additional flexibility to reformulate this gasoline by reducing the requirement to add oxygen to the gasoline, then refiners can be expected to produce gasoline that achieves more reductions in NOx than is would otherwise be achieved under CARB's regulations. In effect, this additional flexibility is expected to lead to voluntary over compliance with CARB's current NOx reduction requirements. This is based in large part on refinery modeling that is unique to California, taking into account the choices refiners can reasonably be expected to make to most economically produce gasoline subject to CARB's current RFG requirements. However, this analysis is not itself a guarantee that these additional NOx reductions will in fact be achieved if a waiver is granted.

Since the achievement of the additional NOx reductions is the underlying premise for the waiver, EPA is proposing to condition this waiver on a demonstration by CARB that it will take satisfactory action to make sure that these additional NOx reductions are in fact realized. EPA is proposing that CARB submit a demonstration to EPA, within six months of issuance of a final rule granting a waiver, of the actions it plans to take to ensure that the additional NOx reductions expected to result from the issuance of the waiver are in fact achieved. While the amount of such NOx reductions may be somewhat difficult to quantify ahead of time, EPA expects that the demonstration will address achieving, at a minimum, 4 tons/day of NOx during the summer

season for the SCAQMD and SMAQMD. The demonstration must include identification of the specific actions CARB intends to take to achieve the expected NOx reductions and a schedule for implementing such actions. We anticipate that these actions will include enforceable requirements sufficient to achieve the expected results. If CARB's demonstration does not adequately ensure that the additional NOx reductions reasonably expected from a waiver will be achieved, or if the specified actions are not fully implemented as submitted, then EPA reserves all rights to withdraw the waiver.

Finally, as the fleet turns over to vehicles with newer technologies, such as improved operation and catalysts, the ability to achieve additional NOx reductions from this formulation flexibility may disappear or become less significant. At this time, EPA does not have adequate information to fully evaluate whether a waiver would continue to be appropriate as the fleet turns over to vehicles with newer technologies. Therefore, this waiver only applies through the end of 2004. Prior to that date, CARB may seek an extension of the waiver by demonstrating that compliance with the oxygen content requirement after that date would continue to prevent or interfere with attainment of the NAAQS. EPA will fully and carefully evaluate any such request for an extension, and will make a decision regarding such an extension based on all of the evidence available at that time.

We are proposing an effective date of January 1, 2002 for the waiver. Under California Executive Order D-5-99, MTBE is to be phased out of California gasoline as soon as possible but no later than December 31, 2002. Since each of EPA's refinery modeling scenarios assume that MTBE may not be used in California gasoline, our confidence in the modeled NOx benefits from a waiver depend in part on California's MTBE ban. Nonetheless, we expect that refiners will

begin to produce gasoline without MTBE well in advance of the effective date of the California MTBE ban, as they transition into the use of ethanol as an oxygenate. We believe that it is appropriate for refiners to have the additional flexibility that today's proposed waiver will afford during at least part of this transition period. We expect that such flexibility during this transition will result in some degree of NOx benefits in California's RJG areas.

#### IV. ADMINISTRATIVE REQUIREMENTS

##### A. Executive Order 13132 (Federalism):

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government." Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

If EPA complies by consulting, Executive Order 13132 requires EPA to provide to the Office of Management and Budget (OMB), in a separately identified section of the preamble to the rule, a federalism summary impact statement (FSIS). The FSIS must include a description of the extent of EPA's prior consultation with State and local officials, a summary of the nature of their concerns and the agency's position supporting the need to issue the regulation, and a statement of the extent to which the concerns of State and local officials have been met. Also, when EPA transmits a draft final rule with federalism implications to OMB for review pursuant to Executive Order 12866, EPA must include a certification from the agency's Federalism Official stating that EPA has met the requirements of Executive Order 13132 in a meaningful and timely manner.

This proposed rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The proposed change to RFG requirements in California would provide regulatory relief for refiners who would now be allowed to make RFG with no oxygen. The change being proposed allows but does not mandate this flexibility so that refiners may choose to continue making RFG with 2.0 (or greater) weight percent oxygen. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

**B. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments**

On November 6, 2000, the President issued Executive Order 13175 (65 FR 67249) entitled, "Consultation and Coordination with Indian Tribal Governments." Executive Order

13175 took effect on January 6, 2001, and revokes Executive Order 13084 (Tribal Consultation) as of that date. EPA developed this proposed rule, however, during the period when EO13084 was in effect; thus, EPA addressed tribal considerations under EO13084. EPA will analyze and fully comply with the requirements of EO 13175 before promulgating the final rule.

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities."

Today's proposed rule does not significantly or uniquely affect the communities of Indian tribal governments. Today's proposed rule does not create a mandate for any tribal governments. This proposed rule applies to gasoline refiners, blenders and importers that supply gasoline to RFG areas. Today's action proposes some changes that would generally relax the Federal RFG requirements, and does not impose any enforceable duties on communities of Indian tribal

governments. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this proposed rule.

**C. Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 USC 601 et. seq.**

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) a small business that has not more than 1,500 employees (13 CFR 121.201); (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant adverse economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the proposed rule on small entities." 5 U.S.C. Sections 603 and 604. Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule

relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule. Today's proposed rule would provide regulatory relief by making the VOC standard for RFG that contains 10 volume percent ethanol slightly less stringent, and by eliminating the oxygen minimum requirement in RFG. These actions will provide more flexibility for refiners to reduce MTBE use by decreasing the cost of ethanol-blended RFG. We have therefore concluded that today's proposed rule will relieve regulatory burden for all small entities. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

**D. Paperwork Reduction Act**

This action does not add any new requirements involving the collection of information as defined by the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. The action will result in revision of the survey form that refiners must complete, but such revision does not represent significant new reporting requirements, nor a substantial increase in the amount of time spent filling out the form. The Office of Management and Budget (OMB) has approved the information collection requirements contained in the final RFG/anti-dumping rulemaking (See 59 FR 7716, February 16, 1994) and has assigned OMB control number 2060-0277 (EPA ICR No. 1951.08).

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to

comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15.

#### **E. Unfunded Mandates Reform Act**

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), P.L. 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments,

including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's proposed rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local or tribal governments or the private sector. The proposed rule would impose no enforceable duty on any State, local or tribal governments or the private sector. This proposed rule applies to gasoline refiners, blenders and importers that supply gasoline to RFG areas. Today's action proposes changes that would provide regulated parties with more flexibility with respect to compliance with the RFG requirements.

**F. Executive Order 13045: Children's Health Protection**

Executive Order 13045: Protection of Children from Environmental health Risks and Safety Risks (62FR19885, April 23, 1997) applies to any rule that: (1) is determined to be economically significant as defined under E.O. 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

EPA interprets E.O. 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5-501 of the Order has the potential to influence the regulation. This final rule is not subject to E.O. 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks" (62FR19885, April 23, 1997), because it does not involve decisions on environmental health risks or safety risks that may disproportionately affect children. We believe that the proposed changes will not have an adverse effect on air quality.

**G. National Technology Transfer and Advancement Act of 1995 (NTTAA)**

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Pub L. No. 104-113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This proposed rule does not involve technical standards, and does not specify the use of technical methods. Therefore, EPA did not consider the use of any voluntary consensus standards.

**II. Statutory Authority**

Sections 114, 211, and 301(a) the Clean Air Act as amended (42 U.S.C. 7414, 7545, and 7601(a)). For a comprehensive discussion of EPA's authority under Section 211(k)(2)(B), see

Appendix A of the Technical Support Document for this rulemaking in Docket A-2000-10,  
Document Number II-B-2.

List of Subjects in 40 CFR Part 80

Environmental protection, Air pollution control, Reformulated Gasoline

Dated:

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Carol M. Browner

Administrator

For the reasons set forth in the preamble, we propose to amend part 80 of title 40, of the Code of  
Federal Regulations to read as follows:

**PART 80 - REGULATION OF FUELS AND FUEL ADDITIVES**

1. The authority citation for part 80 continues to read as follows:

Authority: Secs. 114, 211, and 301(a) of the Clean Air Act as amended (42 U.S.C. 7414, 7545,  
and 7601(a)).

2. Section 80.81 is amended by revising the title of the section and adding a new paragraph (i) to read as follows:

§ 80.81 Enforcement and other exemptions for California gasoline.

\* \* \* \* \*

(i) (1) Beginning on January 1, 2002, and extending through December 31, 2004, instead of the oxygen content standards in § 80.41(c) and (f), for California gasoline the Phase II Complex Model Per-Gallon Standard for oxygen content (percent, by weight) shall be  $\geq 1.0$ , and the Phase II Complex Model Averaged Standard for oxygen content (percent, by weight) shall be  $\geq 1.0$ . There shall be no per-gallon minimum for the Phase II Complex Model Averaged Standard.

(2) On or before [insert date six months from issuance of final rule], California shall submit to EPA a demonstration that California will ensure that the additional NOx reductions reasonably expected to be achieved by the provisions of paragraph (i)(1) of this section will be achieved. Such demonstration shall include the specific actions that California will take and a schedule for such actions. The demonstration shall include enforceable requirements sufficient to ensure that additional NOx reductions are achieved in California, including at a minimum: 4 tons per day during the summer season for both the South Coast and the Sacramento Metropolitan Air Quality Management Districts.

Mr. WAXMAN. In denying the request, Administrator Whitman said, "We cannot grant a waiver for California, since there's no clear evidence that a waiver will help California reduce harmful levels of air pollutants." This is a remarkable statement, given that EPA's technical staff found just the opposite. Let me read from EPA's proposal to grant a waiver. EPA concludes, I'm reading from the EPA technical document, "that compliance with the oxygen content requirement for reformulated gasoline would interfere with attainment of the national ambient air quality standards for ozone and particulate matter in the reformulated gasoline areas in California."

The oxygenate decision seems directly contrary to the goals of the administration's National Energy Policy. One of the goals of the National Energy Policy is to reduce the number of boutique fuels. Yet I understand that as a result of the administration's decision, oil refiners will have to supply California with at least two different fuels in areas that are classified as severe or extreme non-attainment areas under the Clean Air Act like Los Angeles. Oil refiners will have to add ethanol to meet the oxygenate requirement of the Clean Air Act. But in other parts of the State, oil refiners only have to meet California's clean fuel requirements, which do not require the addition of ethanol.

Mr. Brenner, do you agree that the decision to deny California's waiver will increase the balkanization of the fuel supply?

Mr. BRENNER. Congressman Waxman, based on the evidence we have right now, it's difficult to say whether it would or would not increase the balkanization of the fuel supply. It will depend, of course, on how the fuel suppliers respond to the requirement. But I would like to take a minute to explain why Governor Whitman made the decision that she made, and why there seem to be differences of views as to whether it would be adverse or not to air quality in California.

The requirement in the 1990 amendments is that we examine whether the oxygenate requirement would have, would prevent or interfere with the ability of the State to meet the air quality standards, in this case, ozone. That is a fairly narrow task that was put into the Clean Air Act amendments. It does not enable us to consider the factors, many of the factors that you raised.

California sent us a proposal indicating that they felt they met that test, because with a waiver they could reduce the nitrogen oxide emissions from gasoline. When we examined the proposal, we found that although that was the case, we agreed. We found that carbon monoxide emissions would go up and they contribute somewhat to ozone formation. And hydrocarbons could go in either direction, depending on the—

Mr. WAXMAN. And that means if California didn't have an oxygenate requirement that they couldn't develop reformulated gasoline that would meet the Clean Air standards both in all the criteria? Is that your testimony?

Mr. BRENNER. The test is not in whether it would meet Clean Air Act standards or not. We need to do a comparison of what the fuel would achieve with or without the oxygenate requirement. So we need to compare it to the fuel they would be producing with the

oxygenate requirement continuing, compared to the fuel they would be producing without the oxygenate requirement.

Mr. WAXMAN. I ask unanimous consent for an additional minute.

Mr. OSE. We'll have another round.

Mr. WAXMAN. Well, Mr. Chairman, on this point, you took a little bit more than 5 minutes, I wonder if I could ask some further questions.

Mr. OSE. I thought I was right on 5 minutes. I tell you what, we'll give you a minute, Henry. Go ahead.

Mr. WAXMAN. Thank you very much. Now, wouldn't that depend on the reformulated gasoline requirements? Do you agree that if they didn't have an oxygenate requirement to do reformulated gasoline in a specified formula, a certain recipe, that they could develop a reformulated gasoline that would meet all the requirements of the Clean Air Act?

Mr. BRENNER. The reformulated gasoline could meet the basic requirements of the Clean Air Act. But the test in the statute is not whether it meets the basic performance standards of the Clean Air Act that we do a comparison of, it's the gasoline that they would be likely to produce with oxygenates compared to the gasoline they would produce if they received a waiver. We found that differential in terms of carbon monoxide—

Mr. WAXMAN. EPA wrote in its document, "We conclude that compliance with the 2.0 weight percent oxygen content requirement for RFG would interfere with the attainment of the NAAQS for ozone and PM in the RFG areas in the State. EPA has considered the data and other analyses submitted by CARB in support of its request for a waiver. We have also considered information submitted by other interested parties." And so EPA said that it thought that if California had the oxygenate requirements, California could achieve what it is required to do under the law.

Mr. OSE. Mr. Brenner, we're going to come back—

Mr. WAXMAN. Yes or no, do you agree with that statement?

Mr. BRENNER. I need to explain that that was in a draft.

Mr. OSE. We'll come back to Mr. Waxman on a second round.

Mr. WAXMAN. Thank you, Mr. Chairman, for that additional minute.

Mr. OSE. Mr. LaTourette, for 5 minutes.

Mr. LATOURETTE. Thank you, Mr. Chairman.

Mr. Cook, last week I had all of the mayors, city managers, township trustees from my district in town. We met with the American Petroleum Institute, which has some opinions about this as well. One of the mayors raised his hand and raised the question, at least in northeastern Ohio, I don't know if it's this way in California or other parts of the country, but when you drive by a gasoline station on Thursday morning, gas is like \$1.50, when you come back home and if you'd made the mistake of not filling up on your way to work, it's \$1.70 or \$1.75. The mayor's question and I guess my question to you is from the hearings that this committee had last summer, I understand what happened with pipelines and I understand what happens with boutique fuels, and I understand RFG II dilemmas in Chicago or Wisconsin.

But folks in my part of the country don't understand why the same gas in the same ground in the same station goes up 20, 30

cents on a Thursday afternoon. Do you have any insight on that, based on your research?

Mr. COOK. We've looked into that claim some, given the limited amount of retail data that we have. And we've generally found it to be not a true statement as far as statewide averages are concerned, as far as Ohio or Michigan or what have you are concerned.

There does appear to be some isolated stations that did raise prices significantly, although we didn't find any at 25 cents. But I'm not saying, since we don't survey every single, etc. On the other hand, those that did raise prices significantly seemed to be those who had suppressed prior wholesale cost increases to them substantially up to that point, and facing the likely prospect of a sharp jump in their resupply costs, they chose to pass those prior cost increases through plus stay up with the market.

So you do get a pretty good jump when someone's been below market and all of a sudden they correct to market.

Mr. LATOURETTE. The biggest one we had last summer was 42 cents. That's what the fellow from API said, that basically statewide averages don't jump. But I can tell you, it's not only that mayor's observation, everybody in the room started shaking their heads. In the summer time, maybe it's not always 25 cents, but it's 10 cents and people don't understand that.

Mr. COOK. Right.

Mr. LATOURETTE. Because if it is truly a supply and demand difficulty, people don't understand what's happened, other than we know that people are going to hop into their car and take their kids to the beach on Saturday, and so let's get 10 cents a gallon extra from them. I think that leads to some of the conspiracy theories that we hear around here.

Mr. Brenner, let me ask you, following up on where Mr. Waxman was, the President's National Energy Policy does call for a reduction of boutique fuels, and I think when I started driving, there were maybe three blends of gasoline. Now if I read the literature correctly, there are 27 or 28. You have these islands that the chairman talked about in his questioning.

Don't you think that we have the ability to put our heads together and come up with two, three or four that will satisfy the requirements of the Clean Air Act and their amendments and also be specific to certain areas of the country? Isn't it time to do that? In helping, I mean, we're going to have to build more pipelines and more refineries and so on. But it seems to me that some of these spikes, like the ones you got in Chicago and Wisconsin last summer, are caused by inventory shortfalls, together with other problems. But, it's a fact that we have all these blends of gasoline all over the country.

Can't we do that? Don't we have the science to do that?

Mr. BRENNER. We believe there probably are opportunities to reduce the number of fuels out there. Whether there are 27 or how many there are depends on how you count them. But as I noted in my testimony, there is a potential for more. We have already begun a process of sitting down with the oil companies and with the States and with other stockholders to talk about the reasons for the proliferation of number of fuels, and opportunities to reduce that number and perhaps do something. As you suggested, creating

a smaller number of different formulations that States might choose from. That's one of the options that one of the stakeholders has put on the table.

So, the energy policy report asks that we do that in working with the Department of Agriculture and Department of Energy. We've already begun that process and hope to find some opportunities to do exactly what you're suggesting.

Mr. LATOURETTE. Is there a bad guy in the scenario? For instance, a big deal in last year's hearing was the patent that Unocal had, and basically some refiners are saying that Unocal has patented the Clean Air Act. Are the refiners objecting? Are they saying, no, we want to make our stuff and because we have a patent on the blending or the formula, and so are they being the bad guys?

Mr. BRENNER. What we find is differing views within the industry. Some of the companies have found it advantageous to produce fuels for smaller markets. Some of them have found that they would prefer to have the flexibility of being able to provide fuel to many different areas, to have broader markets for their fuels. So as you would expect to see in a big country with lots of different companies, there are different views. But, we think that we can sit down with the companies and with the States and develop options which would reduce the number of fuels, while maintaining the environmental benefits. The States are of course very anxious, and we're anxious to see them preserve the environmental benefits of cleaner fuels. So that would be an important part of that discussion.

Mr. LATOURETTE. Thank you. Thank you, Mr. Chairman.

Mr. OSE. The gentleman yields back.

The gentlelady from Hawaii for 5 minutes.

Mrs. MINK. Thank you very much, Mr. Chairman.

Mr. Brenner, in your testimony, with reference to the reformulated gasoline, you indicated that the Federal program requires 10 metropolitan areas to participate in this program, but that others have joined voluntarily. Is there any impetus for the Congress at this point to increase the numbers of areas that are required to participate?

Mr. BRENNER. The reason some additional areas have chosen to participate is because it provides them with, of course, additional air quality benefits. It reduces pollution in their area. Then some other areas have chosen to, instead of participating in the full reformulated gasoline, to select somewhat cleaner gasoline than conventional fuels, but not go all the way to the reformulated gasoline.

Mrs. MINK. Well, my question is, we limited it to 10 metropolitan areas in the legislation. Isn't there some justification for now considering extending that requirement to other areas?

Mr. BRENNER. I'd say what the Congress would want to consider is, what would the additional cost be. As I said, it is 4 to 8 cents a gallon. But also how many additional areas could take advantage of the additional environmental benefits, how many of them have continuing air quality problems, and this could contribute to reducing those problems.

Mrs. MINK. Your testimony said that ethanol is used in 100 percent of the reformulated gasoline in Chicago and Milwaukee. What

has been the experience of these two cities with the use of ethanol and the price for gasoline in these areas, and the premier consequences?

Mr. BRENNER. What they found is, of course, the reformulated gasoline does meet Clean Air Act requirements, which means it provides them with significant environmental benefits. In the case of Chicago, their emissions of pollution are down something like 8,000 tons a year as a result of using reformulated gasoline with ethanol in it.

Mrs. MINK. Has the price of gasoline increased as a consequence of the use of ethanol?

Mr. BRENNER. The price of gasoline has increased, as it does with all reformulated gasoline. As I said, it is about 4 to 8 cents per gallon.

Mrs. MINK. But how about Chicago?

Mr. BRENNER. I don't have numbers that show the price differential in Chicago compared to conventional gasoline that is nearby, the exact numbers. However, if you do the comparison of gasoline in nearby areas to reformulated gasoline in Chicago with ethanol in it, it's a relatively small differential. We're still talking on the order of 10 cents or less, I believe.

Mrs. MINK. Given a situation where regular gasoline prices are skyrocketing in so many areas, it would seem to me that the price increase for reformulated gasoline would be minimal by comparison.

Mr. BRENNER. That's right. As I said, the price increase for reformulated gasoline has only been 4 to 8 cents a gallon, and you can do those comparisons of conventional gasoline nearby to these areas.

Mrs. MINK. So wouldn't you be prepared to recommend that the Congress consider moving in the direction of extending the requirement to other areas for reformulation, because it does increase the supply, does it not? If the rationale for the crisis is the lack of supply, doesn't the extension into ethanol increase the supply as well, as well as take care of the pollution problem?

Mr. BRENNER. The supply problem is for gasoline overall, not reformulated gasoline alone. So you'd be shifting from conventional to reformulated—

Mrs. MINK. Doesn't the use of ethanol increase the supply?

Mr. BRENNER. The use of ethanol or other oxygenates does increase the supply by about, I believe it's about 5 or, well, actually, the way it's blended, it can increase the supply as much as 9 or 10 percent of gasoline. That's part of why this requirement for reformulated gasoline is in the Clean Air Act, and it's one of the benefits of reformulated gasoline, it helps increase supply.

Mrs. MINK. What incentives are there now for the production of ethanol and its use as a gasoline additive?

Mr. BRENNER. There are a set of tax incentives to encourage the use of ethanol.

Mrs. MINK. What are the incentives?

Mr. BRENNER. I'd have to provide you the specific incentives. I could followup and provide you with a list of those incentives.

Mrs. MINK. Mr. Chairman, I would ask that be inserted in the record.

Mr. OSE. Without objection.

[The information referred to follows:]

# CRS Report for Congress

Received through the CRS Web

## Alcohol Fuels Tax Incentives

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### Summary

Alcohol fuel blends of 10% ethanol and 90% gasoline qualify for a 5.3¢ exemption from the 18.4¢ per gallon excise tax on gasoline, which reduces receipts to the highway trust fund by about \$900 million annually. In addition, revenues to the trust fund are reduced by about \$500 million annually by a tax code provision that allocates some of the tax on gasohol blends to the general fund. This exemption, which can also be claimed as a little used 53¢ per gallon alcohol blender's credit, is the most important federal tax subsidy for alcohol transportation fuels. In addition, there are three other federal tax subsidies that are available for the production and use of alcohol transportation fuels, but they are little used. Comprehensive energy policy legislation recently introduced would alter some of these tax incentives. This report will be updated as legislative actions occur.

### Tax Subsidies for Alcohol Fuels

There are four federal tax subsidies that are available for the production and use of alcohol transportation fuels. However, except for the partial exemption from the motor fuels excise taxes — the tax on gasoline, diesel, and other transportation motor fuels — these subsidies are little used. Thus, this section discusses the tax exemption first, which has been most responsible for the development and growth of the alcohol fuels market. For interested readers, the second section discusses the remaining three tax subsidies, which, although little used, are nevertheless part of the current federal tax laws, and might be used in the future.

**Excise Tax Exemption.** Virtually all transportation fuels are taxed under a complicated structure of tax rates and exemptions that vary by mode and type of fuel. Gasoline used in highway transportation — the fuel used more than any other — is taxed at a rate of 18.4¢ per gallon, composed of: an 18.3¢ Highway Trust Fund rate, which generates most of the revenue for the federal highway trust fund (HTF); and a 0.1¢ rate that is earmarked for the Leaking Underground Storage Tank Trust Fund (LUST).<sup>1</sup> Diesel

<sup>1</sup> The LUST fund finances the cost of cleaning up spills from underground fuel storage tanks. All  
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fuel for highway use — the fuel used mostly by trucks — is taxed at 24.4¢ per gallon, also consisting of two components: a 24.3¢ rate that is allocated into the HTF, and 0.1¢ that goes into the LUST fund. In addition, special motor fuels (gasoline substitutes), jet fuel, railway diesel fuel, motorboat fuel, and virtually every other transportation motor fuel that is not specifically exempt, are also subject to tax.<sup>2</sup> Compressed natural gas (CNG) has, since 1993, been subject to an excise tax of 48.54¢ per MCF (thousand cubic feet) — marking the onset of the taxation of gaseous transportation fuels.<sup>3</sup>

The most important tax incentive for alcohol fuels — the one most responsible for the development of the alcohol fuels market — is the partial exemption, currently at 5.3¢ per gallon, from these otherwise standard excise tax rates on gasoline, diesel, and other transportation fuels. Mixtures of 90% gasoline and 10% alcohol (typically called gasohol) are taxed at 13.1¢ per gallon — they are exempt from 5.3¢ of the tax. Since January 1, 1993, mixtures that are 7.7% or 5.7% alcohol (either ethanol or methanol) have received a prorated exemption. Thus, 7.7% ethanol blends qualify for a 4.058¢ exemption (they are taxed at 14.342¢ per gallon); and 5.7% ethanol blends qualify for a 2.978¢ per gallon exemption (they are taxed at 15.422¢ per gallon). The 5.7% and 7.7% blends correspond, respectively, to the 2.0% and 2.7% oxygen content standard for gasoline sold in ozone nonattainment areas and carbon monoxide nonattainment areas under the Clean Air Act.<sup>4</sup> Most gasohol sales are exempt at the rate of 5.3¢ per gallon because they are 90/10 blends. In all these cases, the exemption equates to 53¢ per gallon of ethanol.<sup>5</sup> Finally, straight (or neat) alcohol fuels — mixtures that contain a minimum of 85% alcohol — also qualify for the excise tax exemption at varying rates. For example, straight *biomass-ethanol* is taxed at a rate of 13.1¢ (a 5.3¢-exemption); straight *biomass-methanol* is taxed at a rate of 12.4¢ per gallon (a 6.0¢-exemption). The market for these straight, or neat fuels, is very small.

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<sup>1</sup> (...continued)

taxable transportation fuels are assessed the 0.1¢ LUST fund tax except for liquefied petroleum gas or propane.

<sup>2</sup> A variety of off-highway fuel uses (e.g., farming), business uses (e.g., construction equipment), and government uses (e.g., police departments and school districts) are tax exempt.

<sup>3</sup> Before 1993, only liquid fuels were subject to the various transportation fuels taxes — fuels that were liquid at the time they entered into the tank of the vehicle. The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) introduced a tax on CNG.

<sup>4</sup> Clean Air Act (CAA), as amended in 1990 requires that all gasoline sold in the winter months in the 40 carbon monoxide (CO) non-attainment areas contain at least 2.7% oxygenate. Oxygenates add oxygen to gasoline and make the fuel burn more completely and more cleanly. This part of the program began on November 1, 1992. The CAA also requires that all gasoline sold in 9 ozone non-attainment areas be reformulated gasoline, containing at least 2% oxygenates. Reformulated gasoline involves a more complex and extensive change to the chemical properties of fuel to 1) reduce emissions of volatile organic compounds (which form ozone), 2) reduce emissions of toxic compounds (such as formaldehyde), and 3) keep emissions of nitrogen oxide from increasing.

<sup>5</sup> Alcohol blended with diesel fuel or any one of the other special motor fuels is also partially exempt from tax. The exemption for “gasohol” blends also applies to blends of diesel and biomass-derived alcohol and blends of a special motor fuel and biomass-derived alcohol, whether ethanol or methanol.

To qualify for any of the above exemptions, the alcohol must be at least 190 proof (95% pure alcohol, determined without regard to any added denaturants or impurities). Technically, both ethanol and methanol qualify for the exemption as long as they are not derived from petroleum, natural gas, coal, or peat. In practice, however, virtually all fuel alcohol is ethanol produced from corn; very little, if any, methanol is produced from wood, and other biomass (or renewable) sources because it is generally uneconomic.<sup>6</sup>

The federal tax exemptions for alcohol fuels also apply to certain fuel additives called oxygenates, provided they are produced from renewables such as corn and not from fossil fuels such as natural gas. In 1995, the IRS ruled that blends of ETBE (ethyl tertiary butyl ether) and gasoline would also qualify for the reduced partial excise tax exemption. ETBE is a compound derived from a chemical reaction between ethanol and isobutylene (a byproduct of both the petroleum refining process and natural gas liquids).<sup>7</sup> In this reaction, the ethanol is chemically transformed and is not present as a separate chemical in the final product. In effect these rulings ensured that the oxygenate required under the CAA would also qualify for the tax subsidies. Allowing ETBE to qualify for this tax exemption was intended to further stimulate the production of ethanol. Allowing ETBE to qualify for the federal tax subsidies reduces the growth of MTBE (methyl tertiary butyl ether), its main competitor. ETBE costs more to produce and therefore, without the tax subsidies, could not compete with the less costly MTBE.

The excise tax exemptions for alcohol fuels are currently scheduled to expire on October 1, 2008; the equivalent blender's tax credits are scheduled to expire on January 1, 2008. The Transportation Equity Act for the 21<sup>st</sup> Century (P.L. 105-178) extended the exemption by nearly seven years. Prior to these amendments, the exemption, which was 5.4¢, was scheduled to expire on December 31, 2000. The Transportation Equity Act provided for a phased-in reduction in the exemption (and the equivalent blender's tax credit) to: 5.3¢ (53¢ credit) for the years 2001&2002, 5.2¢ (52¢ credit) for the years 2003 & 2004, and 5.1¢ (51¢ credit) for the years 2005-2007. The expiration date of the HTF part of the gasoline tax (the 14.0¢) was also extended by the Transportation Equity Act by six years from October 1, 1999, to October 1, 2005.<sup>8</sup> The remaining component — the 4.3¢ rate — has no expiration date; and the 0.1¢ LUST component expires on April 1, 2005.<sup>9</sup>

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<sup>6</sup> Although blends of gasoline with biomass-derived methanol would also qualify under the tax code, such blends are disqualified under the Clean Air Act because of the associated increase of emissions of ozone-forming pollutants.

<sup>7</sup> Natural gas liquids are those components of wellhead gas — ethane, propane, butanes, pentanes, natural gasoline, and condensate, etc. — that are liquefied at the surface in lease separators, field facilities, or gas processing plants.

<sup>8</sup> Note that the alcohol fuels exemption expires three years after the gasoline taxes expire. This is odd since the exemption is defined with respect to the gasoline tax — without a gasoline tax, there could be no exemption, (although there could still be a blender's tax credit). On the other hand, the gasoline tax has never been allowed to expire.

<sup>9</sup> Prior to October 1, 1997, the gasoline tax had three components: 14.0¢ for the HTF, 4.3¢ for the general fund, and 0.1¢ for the LUST trust fund. Each of these had different expiration dates. Taxpayer Relief Act of 1997 (P.L. 105-34) reallocated the 4.3¢ to the HTF but retained the different expiration dates. The Transportation Equity Act extended the expiration date for all

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**Revenue and Highway Trust Fund Implications.** From 1978 (when the excise tax exemption for alcohol fuels was first enacted) to FY2000, it is estimated that the exemption cost the federal treasury over \$10 billion in foregone federal revenues in gross terms. Net revenue losses are about 25% less due to the deductibility of excise taxes against income taxes – lower excise tax deductions due to the tax exemption imply increased income taxes. Currently, the annual gross revenue losses from the exemption are estimated as follows: \$880 million for FY2001 rising to \$960 million for FY2006.<sup>10</sup> Revenue losses from the blender's tax credit and the small ethanol producer credit are estimated at under \$50 million per year; there is no indication that the remaining two tax benefits to alcohol fuels generate revenue losses, as they are little used.

The effect of the alcohol fuels tax exemption on the HTF consists of the direct revenue loss due to the tax exemption, which comes at the expense of the trust fund, and to a lesser known provision in the Internal Revenue Code (IRC § 9503), which allocates a portion of the taxable portion of the tax on gasohol blends into the general fund.

As was noted above, all but 0.1¢ of 18.4¢ excise tax on gasoline goes into the highway trust fund; this tax generates about 2/3 (over \$22 billion annually) of the trust fund's revenues, projected at over \$36 billion in FY2002. In FY1999, based on the latest actual published data, revenue losses resulting from the exemption are estimated at about \$700 million as a result of the 5.4¢ alcohol fuels tax exemption. According to Office of Management and Budget projections, the HTF is estimated to lose about \$930 million in FY 2002 as a result of the 5.3¢ alcohol fuels tax exemption.<sup>11</sup> In addition, however, IRC §9503 provides that part of the taxable portion of the tax on gasohol blends (the 13.1¢ for 90/10 blends, the 14.342¢ for 92.3/7.7 blends, and the 15.422¢ for 94.3/5.7 blends) is not allocated to the HTF, but instead is allocated into the general fund. More specifically, for the 90/10 blends, the law provides that 3.1¢ of the 13.1¢ tax remains in the general fund; for blends containing less than 10% ethanol, 2.5¢ remains in the general fund and is not allocated into the HTF. Based on actual FY1999 data, the most recent available, estimated losses to the HTF from these allocations are about \$400 million. Thus the combined revenue losses to the HTF are estimated at about \$1.1 billion for FY1999. For FY2002, the combined revenue loss to the HTF is estimated at about \$1.4 billion.

### Other Possible Tax Subsidies for Alcohol Fuels

**The Blender's Tax Credit.** In place of the excise tax exemption, gasohol blenders may claim an income tax credit for alcohol used to produce a qualified mixture (a mixture of alcohol and gasoline, or a mixture of alcohol and any other special motor fuel) under §40 of the Internal Revenue Code. The mixture must either be sold for use as a fuel (not merely as an octane enhancer) or used as a fuel in the producer's trade or business. An income tax credit is also available for straight alcohol used as fuel. This credit is available

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<sup>9</sup> (...continued)

motor fuels excise taxes, but the 4.3¢ component is permanent — it does not have an expiration date.

<sup>10</sup> Executive Office of the President. Office of Management and Budget. *Budget of the US Government, FY 2002: Analytical Perspectives*. Table 5-2, P. 66. Washington.

<sup>11</sup> Note the 1¢ decline in the exemption amount, which became effective on January 1, 2001.

only to the user directly (who must use it in a trade or business), or to the seller who must sell it at retail to the ultimate user (as long as it is placed in the fuel tank of the buyer's vehicle). Thus, whether the alcohol is a blend or straight fuel determines who qualifies for the tax credit. In all these cases, the alcohol may be either ethanol or methanol but must not be produced from fossil fuels, effectively limiting the tax credit to ethanol from corn.

The amount of the income tax credit depends on whether the alcohol is ethanol or methanol, and the strength of the alcohol. If the alcohol is ethanol, the credit is 54¢ per gallon of ethanol if the alcohol is at least 190 proof, and 40¢ if the alcohol is between 150 and 190 proof. This credit is equivalent to 5.4¢ per gallon of ethanol mixture. This mixture credit is available only to the blender, who must not only produce the mixture but must either use the mixture as a motor fuel in a trade or business or sell it for use as a fuel. The blender may be the producer, the terminal operator, or the wholesaler. The credit is 60¢ per gallon of alcohol if the alcohol is methanol and if the alcohol is at least 190 proof, and 45¢ if the methanol is between 150 and 190 proof. This credit is equivalent to 6.0¢ per gallon of methanol mixture. No credit is available for either ethanol or methanol that is less than 150 proof. The two blender's tax credits have been available continuously since 1980, and they are scheduled to expire on the earlier of January 1, 2001, or in the event that the HTF excise taxes are not in effect.

There are several reasons why the tax credit is little used. First, there is the timing differences between the availability of the two tax subsidies. The exemption is available up front — as the fuel is actually being blended— whereas the benefits of the tax credit must await either the filing of the income tax return or the payment of estimated taxes (quarterly). Second, there are a number of restrictions to the blender's tax credit that significantly limit its value: Under IRC §87, the alcohol fuels tax credit is itself taxable as gross income for the tax year in which the credit is earned. Thus, a taxpayer that claims the credit has to add it back as income subject to tax thereby reducing the value of the credit; the alcohol fuels tax credit is a component of the general business tax credit under IRC §38 (which includes the targeted jobs tax credit, research and development tax credit, low-income housing tax credit, and other credits) and is subject to the carryforward and carryback rules of §39; the credits are not refundable; they may be used only against a positive tax liability; they are of no value if the producer has no tax liability.

**Small Ethanol Producer Tax Credit.** Current law provides for an income tax credit of 10¢ per gallon (\$4.20 per barrel) for up to 15 million gallons of annual ethanol production by a small ethanol producer, defined as one with ethanol production capacity of less than 30 million gallons per year (about 2,000 barrels per day). This credit, which was enacted as part of the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508), is strictly a production tax credit available only to the manufacturer who sells the alcohol to another person for blending into a qualified mixture in the buyer's trade or business, for use as a fuel in the buyer's trade or business, or for sale at retail where such fuel is placed in the fuel tank of the retail customer. Casual off-farm production of ethanol does not qualify for this credit. The small ethanol producer credit is limited in the same way as the blender's tax credit. The amount of the credit is reduced to take into account any excise tax exemption claimed on ethanol output and sales.

Farmer cooperatives do not benefit from this production tax credit because, as tax-exempt entities, they pay no income tax. Rather, any income flows through to the individual members who are taxed under the personal income tax. S. 596, the tax part of

the comprehensive energy bill introduced by Senator Bingaman (which is also the Democratic alternative energy bill) would allow farmers cooperatives to qualify for the 10¢/gallon small ethanol producer tax credit. In particular, S. 596 would allow the 10¢ tax credit to flow-through to the individual members. S. 389, the National Energy Security Act of 2001 introduced by Senator Murkowski on February 26, 2001, has no such provision. Both bills would also create a new tax incentive which would benefit alcohol fuels. For more details, see CRS Report RL30953, *Energy Tax Incentives: A Comparison of the National Energy Security Act of 2001 (S. 389) and the Democratic Alternative (S. 596)*.

**Income Tax Deduction for Alcohol-Fueled Vehicles.** Individuals or businesses that purchase alternative fuel vehicles (AFVs) can claim a tax deduction from adjusted gross income up for these costs of new vehicles and upgrades to existing conventionally fueled vehicles. The maximum tax deduction for cars is \$2,000, but for trucks it can go as high as \$50,000. A tax deduction is also available, up to \$100,000, for investments in any equipment needed in dispensing the alternative fuels — for storing and dispensing the clean fuel and otherwise refueling clean fuel burning vehicles. For both of these tax incentives, alternative fuels are defined as compressed natural gas, liquefied petroleum gas, liquefied natural gas, hydrogen, and electricity, and they include 85% (neat) alcohol fuels, ether, or any combination of these produced from biomass. This deduction, in general, is little used so, currently, that it is of little benefit to alcohol fuels.

**The Section 29 Production Tax Credit.** An income tax credit is also available for the production of a broad variety of fuels derived from various alternative energy resources (such as oil from tar sands or shale, gas from coalbeds, brine or tight formations, synthetic fuels, etc.). This is the alternative fuels production tax credit, also known as the §29 tax credit (because it is part of Internal Revenue Code section 29), which currently is over \$6.00 per barrel of fuel. Certain types of alcohol fuels — either ethanol or methanol produced synthetically from coal or lignite — could qualify for this non-refundable tax credit. Alcohol fuels produced from biomass do not qualify for this credit, although gas produced from biomass does qualify for the credit. There is little if any production of synthetic fuels from coal in the United States so that, based on current information, this credit is not claimed on alcohol fuels used in transportation.<sup>12</sup>

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<sup>12</sup> For a more detailed description and an analysis see: U.S. Congress. Congressional Research Service. *Economic Analysis of the §29 Tax Credit for Unconventional Fuels*. CRS Report # 97-679 E by Salvatore Lazzari. July 7, 1997.

Mr. OSE. I'd also remind the gentlelady that—she yields back.

Mr. Otter from Idaho for 5 minutes.

Mr. OTTER. Mr. Brenner, so that I don't misunderstand, and I don't want to rush to an idea here where we end up dividing up the scarcity, which it sounds like where we're going. We have a law in Idaho, it's called Finagle's law. It says, once something is sufficiently screwed up, almost anything the Government does to improve it will make it worse.

Having said that, in these new bunch of fuels, these exotic efforts that we've got that we now want to apply uniformly, it appears, across the United States, tell me, in the refining process, with the new standards, how many gallons of gasoline do you get out of a barrel of oil?

Mr. BRENNER. How many gallons?

Mr. OTTER. How many gallons. It used to be, if we had a viscosity of 19 from, say, Saudi light crude, we'd get 19 gallons of gasoline. How much do you get today?

Mr. BRENNER. It really varies depending on what mix of products the refinery is choosing to produce from each barrel. But the point is correct that with reformulated gasoline, it extends the amount of gasoline supplied, because the oxygenates that you add to it displace the need for additional petroleum from that barrel of oil.

Mr. OTTER. But isn't it true that there's a reduction in the raw base material, the crude oil, in the amount of gasoline that you get out of a barrel of crude? Is there a reduction or not? Do you still get the same amount of gasoline as you did 20 years ago?

Mr. BRENNER. Actually, with reformulated gasoline, you end up getting somewhat more, because of the addition of the oxygen.

Mr. OTTER. No, forget the oxygen. Forget adding ethanol. Before you blend, how much gasoline did you get out of a barrel of oil?

Mr. BRENNER. I can't tell you what the numbers were from previously to now, but we could certainly provide you that.

Mr. OTTER. What does a gallon of ethanol cost?

Mr. BRENNER. About—I understand that it's pretty close to the price of gasoline, it's about \$1.40, \$1.50 a gallon, is our understanding.

Mr. OTTER. My company made 6 million gallons on an average, ethanol out of potato waste in Idaho. Our average price was \$2.30 a gallon. That's what we had to get out of it, after we poisoned it with gasoline to make sure that we didn't drink it. So I don't know where you're getting this extra ethanol much cheaper than the price of gasoline. But it seems to me, we're going to go out of business out there if you can buy it cheaper, made out of corn, I guess, so long as the price of corn is reduced.

Mrs. MINK. If the gentleman would yield—

Mr. OTTER. My point is this, Mr. Brenner. Isn't it a fact that not only just in the production of the product itself, but in the handling of the product, the storage of the product, the transportation of the product, the delivery of the product, the execution of delivery from the pump itself into the gas tank, all have changed substantially? You cannot put the same gas in the pipeline if you've got one fuel going into another. So you've got to purge the pipeline, you can't put the same one in the pipeline. So you've got to purge the trans-

port. You can't put the same in the tank, so if you're going to have two or three of these fuels, you've got to have two or three tanks.

All of this adds to the overall capitalization cost of the whole idea of 27 different kinds of fuels, isn't this right?

Mr. BRENNER. It's true that when you use ethanol as part of the fuel supply then you have a set of additional requirements, as you mentioned, with respect to storage and distribution to minimize the amount of what we call commingling of the ethanol based fuel with other fuels. In part, those additional costs have been offset by a tax benefit that ethanol receives and that helps. I think that's part of why you're seeing a difference in price that you've described compared to what I described. There is a tax benefit that is somewhat over 50 cents a gallon for the use of ethanol.

Mr. OTTER. Thank you.

Mr. OSE. The gentleman yields back?

Mr. OTTER. I yield back.

Mr. OSE. The gentleman from Massachusetts.

Mr. TIERNEY. Mr. Brenner, just following up on that a bit, in your testimony I believe you said that some in the industry thought it was advantageous to produce fuels for smaller markets. So, I'm assuming that the EPA is going to explore the fact that industry has been very complicit in fostering this boutique sort of situation that we have. And you're going to deal with them and talk to them about that?

Mr. BRENNER. Well, Congressman Tierney, our focus is going to be on trying to look for solutions to—

Mr. TIERNEY. Well, one solution I would hope would be to get them to cooperate as opposed to trying to drive the market into boutique so they can make more money.

Mr. BRENNER. Sure, we would certainly want to work with companies—

Mr. TIERNEY. Let me ask you, do some refineries encourage States to adopt boutique fuel requirements instead of opting into the RFG program?

Mr. BRENNER. My understanding is that in some instances, companies did suggest that.

Mr. TIERNEY. And when the Federal Government permitted a State to require the use of a boutique fuel, EPA publishes that notice in the Federal Register, right?

Mr. BRENNER. That's correct.

Mr. TIERNEY. Has the refining industry ever submitted comments opposing any State boutique fuel requirement, to your knowledge?

Mr. BRENNER. I don't know if I can say that's true for any instance—

Mr. TIERNEY. To your knowledge.

Mr. BRENNER [continuing]. But typically, we have, I know there are very few instances, if any, where we have received comments from refiners.

Mr. TIERNEY. You're not aware of any, are you?

Mr. BRENNER. I'm not personally aware of any, that's right.

Mr. TIERNEY. Thank you.

Mr. Cook, let me just ask you a question. You mentioned the concept of backwardation in your testimony. Would you explain to us again what that is?

Mr. COOK. For crude oil, it would simply mean that future deliveries, say deliveries in August, of crude oil, would be somewhat lower priced than deliveries in July.

Mr. TIERNEY. And as a result of that, people in the refinery industry are less inclined—

Mr. COOK. Right.

Mr. TIERNEY [continuing]. To put on production capacity now at a higher price than they would at an anticipated lower price?

Mr. COOK. Sure.

Mr. TIERNEY. Now, we're all enthralled with the free market, which I used to assume meant that this industry and others would not want the Government to get involved in their business, but I notice that we already have an estimated \$15.6 billion over the next 5 years of incentives for oil and gas production that are in existing law. So, assuming for a second that we don't do any more of that, and we grant them their wish to be a free market, what policies are out there for us that encourage something against that trend, that encourage people to actually produce more now than be afraid that the price is going to drop later and quit that production?

Mr. COOK. Well, again, I don't think that EIA as a statistical organization can comment on policy, other than to make the comment consistent with my testimony that more crude supply certainly improves refining economics and tends to encourage, rather than discourage, extra production and extra storage.

Mr. TIERNEY. So, if we convince OPEC to produce more and if we convince some of the non-OPEC countries to produce more, that would be an assistance on that?

Mr. COOK. Certainly more supply is going to reduce crude costs and encourage refiners to buy and store and refine more products.

Mr. TIERNEY. Mr. Brenner, what are the air pollution concerns that are associated with refineries?

Mr. BRENNER. Well, refineries, as major industrial sources, do produce significant amounts of pollution. They have reduced their emissions over the years, but nonetheless, they in recent years have produced over 30,000 tons per year of toxic emissions and over 800,000 tons per year of what we call criteria pollutant emissions—nitrogen oxides, hydrocarbons, carbon monoxide and sulfur dioxide. So they are significant sources of air pollution.

Mr. TIERNEY. Under the new source review requirements, what are the refineries required to do when they increase production?

Mr. BRENNER. A refinery can increase its utilization, in other words, its production, without any additional controls if it does not require making a change to the refinery. But if they need to make a change to the refinery in order to increase production, then they can still do that without any new requirements, as long as the pollution does not go up by more than 10 tons a year in California or 40 tons a year in many other parts of the country.

So the first 10 to 40 tons of emission increases do not carry with them additional control requirements. But if they do make a change and the pollution goes up by more than that 10 to 40 tons,

then they need to either find offsetting reductions within their facility or they need to put on modern pollution control equipment. The goal, of course, is to minimize the increase in pollution that occurs as a result of the increased production. And it's important to the communities near the refinery that those pollution increases, of course, be minimized.

Mr. TIERNEY. Thank you.

Mr. OSE. Thank you, Mr. Tierney. Mr. LaTourette, for 5 minutes.

Mr. LATOURETTE. Thank you, Mr. Chairman.

Mr. Brenner, I apologize for not being here at the beginning of the hearing. Do you have the job Mr. Perciasepe used to have in the old administration?

Mr. BRENNER. I'm the Acting Assistant Administrator until the political appointee can be confirmed, that's correct.

Mr. LATOURETTE. I wanted to followup on where Mrs. Mink was a little earlier, and also Mr. Otter's observation about how when the Government gets involved, things can get screwed up. It seems, as my grandfather used to say, we have things "bassackwards" with our tax code on some of these. Let me just tell you, on ethanol, in the State of Ohio, about 4 out of every 10 gallons of fuel that's sold in Ohio is ethanol based, which is good for the air, it's helped us get our non-attainment areas into attainment.

But, I think as you know, when it comes to the Highway Trust Fund, it's taxed at about 10 cents a gallon as opposed to 18 cents a gallon for regular gasoline. So while Ohioans are driving around doing nice things for the environment, they're getting whacked, and when it comes to distributing shares, to fix the roads, bridges and highways, which also increase fuel efficiency, make the air cleaner and everything else. It seems to me, on the Transportation Committee, on which I also have the pleasure of serving, we will be attempting shortly to legislatively fix that inequity. It seems to me that a State that wants to do good by its air and use reformulated gasoline should be rewarded, not penalized.

I know that there's a big ethanol lobby that plays into that, and it's a big issue that's not as simple as I just made it. But I would hope that the EPA will take a look at it, as you move forward in seeking cooperation with all the various stakeholders, that perhaps States that want to do well by the environment should also have the opportunity to participate fully in the Highway Federal Trust Fund to make their roads better. If you have any comment about that, I'd be glad to hear it.

Mr. BRENNER. That's a good example of why the decisions on fuels, and why, in the President's energy report, a directive is that work be done not just by EPA, but working with the Department of Energy, the Department of Agriculture, we'll certainly be talking to the Department of Treasury regarding some of the issues you raised. We will then need to consult closely with Members of Congress. Because as you're noting, all of these decisions have ramifications that go well beyond environmental protection.

Mr. LATOURETTE. Let me just ask you now, in response to that question, I understand the meetings with the stakeholders. But, I also think Mr. Tierney hit the nail on the head, too, if I'm the CEO of a corporation that has a patent on a certain blend of fuel that I want you to buy, I think it would be a good idea for the State

or locality to say that you've got to have my fuel running in the cars to meet the Clean Air Act requirements.

And this may be a non-Republican position, but I'll tell you, if you came to the conclusion that there was a blend of gasoline that would take care of our air and it would help ease some of the things Mr. Otter was talking about, that's OK with me. I think that's something that would generate a lot of support in the Congress.

Did you have at EPA a timeframe when you think you're going to get this thing squared away, these meetings that you're having?

Mr. BRENNER. The meetings have already begun, and our schedule for producing a report on boutique fuels is to issue a draft of it in the fall for comment, and then toward the end of the fall or beginning of the coming winter have a final report which hopefully will include some suggestions or options for all of us, the administration and the Congress, to pursue in addressing these concerns.

Mr. LATOURETTE. Thank you very much. I don't have any more questions. I yield back.

Mr. OSE. The gentleman yields back. Mrs. Mink for 5 minutes.

Mrs. MINK. I have one question of Mr. Cook. As I read your testimony, the major emphasis that you made was that the primary reason our gasoline prices have escalated and fluctuated is because of the oil supply. And where the supply has been inadequate, it has increased the prices for gasoline.

My question is, with the new administration taking office in January, what efforts have you and the administration made to try to work with OPEC to increase the supply so that this basic problem could be solved at least on one end without all the other discussions that we've had?

Mr. COOK. Well, first of all, I'm in EIA, and I don't have a lot of contact with the Secretary of Energy. So I can't tell you what he's been doing with OPEC. Also, that might be a slight misunderstanding of my testimony. We didn't try to pick one factor out and emphasize it any more than another. We did talk a little more about crude oil in the testimony because it's very topical right now, with the Iraqi outage. But now, we list that factor, and then the other four or five factors, not the least of which was the weather back in December. Those high natural gas prices deeply cut into the methane and the butane streams that are key compounds to making MTBE, which helped to keep stocks low going into the spring.

The focus on distillate production, which was extra strong because of fuel switching from natural gas to heating oil, diesel fuel, can take some of the responsibility for less gasoline this spring. A number of factors there that gave us low stocks that combined with the tight balance to give us the spike.

Mrs. MINK. Well, with respect to most complicated issues, there are always many avenues that you approach in order to solve it. One would think that the administration would put high on its agenda efforts that need to be made to increase the supply and the one source is OPEC. So, I'm surprised not to see anywhere in the policy statements that are being made that effort is underway.

Thank you, Mr. Chairman.

Mr. COOK. Well, can I comment on that? I can't speak for the Secretary, but I've seen in the press that he is in a continuous dialog with OPEC, it's just one that is not public.

Mr. OSE. Mr. Tierney for 5 minutes.

Mr. TIERNEY. Thank you.

Mr. Cook, can you share with us what the profits of the refining industry were in 1999 and 2000?

Mr. COOK. No, I don't have those figures handy. I could get them for you. But generally speaking, they were relatively low in 1999 and relatively high in 2000.

Mr. TIERNEY. Well, if you could get those, I would appreciate it, and if they could be made part of the record.

Mr. OSE. Without objection.

[The information referred to follows:]

**Mundinger, Elizabeth**

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**From:** Rasmussen, Jon [JON.RASMUSSEN@eia.doe.gov]  
**Sent:** Thursday, June 28, 2001 8:02 AM  
**To:** Mundinger, Elizabeth  
**Cc:** Cook, John  
**Subject:** U.S. Refining/Marketing Profits and Profitability

To: Rep. John Tierney  
From: John Cook, Director Petroleum Division, Energy Information Administration  
Date: June 27, 2001  
Re: Response to Rep. Tierney's question for the June 14, 2001, hearing record about profits in the refining industry  
The Energy Information Administration (EIA), through its Financial Reporting System (FRS), annually collects financial information by energy lines of business from the major U.S.-based energy producing companies ("the FRS companies"). In the EIA publication, Performance Profiles of Major Energy Producers 1999, which utilizes the FRS data, it was stated, "The FRS companies' U.S. refining/marketing operations were less profitable (measured by return on investment) during 1999 than in 1998 (but were still the third highest since 1989)..." The FRS data for 2000 are still in process. However, based on public financial disclosures by the FRS companies, compiled by EIA, income from the FRS companies' U.S. refining/marketing operations rose 145 percent between 1999 and 2000, to \$9.4 billion. In the fourth quarter of 2000, U.S. refining/marketing income was up 692 percent. In the first quarter of 2001, U.S. refining/marketing income rose by 102 percent over the first quarter of 2000.

Mr. TIERNEY. Mr. Brenner, would you comment on the reaction that we've been seeing from different types, particularly the industry, with regard to the diesel sulfur rule?

Mr. BRENNER. Sure. The diesel sulfur rule is part of a regulation that is intended to clean up diesel emissions and it is an effort to combine both new technologies on vehicles with cleaner diesel fuel so that the emissions can be significantly reduced, because the new technologies on vehicles require cleaner diesel fuel in order to work effectively.

This is a rule that is phased in beginning in the year 2006. The administration decided recently, as you are probably aware, to go ahead with this rule. One of the things, though, that we will be doing is trying to ensure that it's implemented in a way to minimize any possible fuel impacts, the adverse impacts on fuel supply. That's part of the reason why it's designed with a phase-in and why there's a several year lead time for producing the new gasoline.

We are hopeful that we will be able to work closely with the petroleum industry to ensure that there is a smooth phase-in of the lower sulfur diesel fuel, just as there is currently a smooth phase-in of the lower sulfur gasoline for cars that's going on now.

Mr. TIERNEY. In Europe, are they using cleaner diesel fuels now?

Mr. BRENNER. In Europe, they have also made a decision to move toward cleaner diesel. They are in the process of cleaning up diesel fuel and they have a proposal before them that would result in even slightly cleaner standards than what we have proposed for 2006.

Mr. TIERNEY. So that will increase the market and presumably help on the price issue.

Mr. BRENNER. What we seem to be moving toward is decisions, both in Europe and Canada, to move toward a lower sulfur diesel fuel for use, that's right.

Mr. TIERNEY. I think, Mr. Cook, in fact, I'm sure that Mr. Cook's figures are going to show us that the refineries are earning record profits. How would you compare the recent profits of the refining industry to the cost that might be incurred in complying with the diesel sulfur rule?

Mr. BRENNER. The diesel sulfur rule, our estimate was that for the refiners, not for the auto and truck manufacturers, but for the refiners, the cost is on the order of somewhat less than \$2 billion a year. When you take the capital costs and annualized them, and you take the operating costs, it's a little bit less than \$2 billion a year. Because we need to do an economic impact analysis whenever we do a new regulation, we did look at how did, one of the factors we looked at is how does that compare to profits.

What we found was that profitability over the last few years has been, or we had numbers that were close to \$20 billion in 1998 and over \$70 billion in 2000. And so you could compare, one measure would be to compare that profitability with the annualized cost, which as I said is a little bit less than \$2 billion a year.

Mr. TIERNEY. Now, refineries, they say they're going to need enough lead time to prepare for the new fuel requirements, and they're going to be required to produce tier two low sulfur gasoline

starting in 2004. Do you think that's enough time for them to comply?

Mr. BRENNER. That program seems to be working very well. They have been making investments to enable them to produce the lower sulfur fuel in some areas, it's already being produced. And so we've been very pleased with the progress.

Mr. TIERNEY. Is BP-Amoco producing?

Mr. BRENNER. Yes, in many areas, BP-Amoco is already producing lower sulfur gasoline. And in some instances, we're seeing commitments already to produce lower sulfur diesel fuel. That's only a year after the regulation was issued.

Mr. TIERNEY. And finally, you testified that prices this spring rose both for conventional and RFG fuels. What does that tell us about the effect of the RFG program is having on the rise in gasoline prices?

Mr. BRENNER. We believe that the primary factors causing increases in gasoline prices are some of the other ones that were mentioned here, the tight situation in terms of refinery capacity, the increased costs of crude, some of those other factors, and that they seem to be affecting both conventional and reformulated gasoline. So, we continue to believe that the effect of reformulated gasoline is the 4 to 8 cents a gallon I mentioned, but that's only a small part of the overall increase, of course, that we're seeing in gasoline.

Mr. TIERNEY. Thank you very much. Thank you, Mr. Cook.

Mr. OSE. The gentleman from California for 5 minutes.

Mr. WAXMAN. Mr. Brenner, I want to go back to this issue, and ask you to take a step back to look at it. Under the Clean Air law, California has a requirement that 2 percent of its reformulated gasoline has to have an oxygenate in it. If California is kept to that requirement, it could well mean that there will be a supply disruption, there will definitely be a price increase, and EPA at one point thought it could lead to less cleanup of the air quality. So, let's just say a possible environmental consequence, adverse environmental consequence.

So, it seems to me that California wanted a waiver of this oxygenate requirement so they'd only have one fuel instead of two fuels. It's cheaper to have one fuel. The administration says we ought to have one and not a bunch of different fuels. It would be more available, and with the California standard, they'll get all the environmental benefits.

Am I right in what I'm saying so far? You don't have to agree with every analysis, but generally, isn't that really what we're facing?

Mr. BRENNER. Well, of course, it would depend on what fuel is produced. But, what our analysis showed was that you may or may not have an increase in pollution. The problem was that the statutory requirement we were working under required us to be able to clearly state that you would have an air quality benefit by dropping the oxygenate waiver.

Mr. WAXMAN. Now, I have it clear in my mind. What you're saying, in effect, is that it is a legalistical argument, not whether it makes sense to have one fuel as opposed to two. Whether we're going to get the environmental benefit by the California gasoline standard, and whether we're going to have less of a threat of sup-

ply and price increases because of the two fuel standard, you're saying that the law says that for California to get a waiver that we've got to show that the 2 percent oxygenate requirement is going to lead to an adverse environmental impact.

Now, EPA at one time said it would lead to an adverse environmental impact. On that basis, EPA recommended to the administration that they grant the waiver. Well, this went to the White House and the President turned it down. The only one who wants this oxygenate requirement is Archer Daniels Midland. And now EPA's coming back and saying, well, wait a minute, we don't know for sure that there's going to be an adverse environmental consequence, and on that basis, that waiver should be denied.

Well, that doesn't make any sense to me. EPA is changing its position from that which it had before. The Bush administration is saying it makes more sense to have gasoline in California that is specialized for one part of the State as opposed to another, that could lead to less of an environmental benefit, and is going to cost more because they'd have to meet this oxygenate requirement. It's going to cost more. And because it's going to cost more to get this replacement for MTBE, it could be that there's going to be a supply disruption.

That to me doesn't make any sense. That's why I find it so incomprehensible that the Bush administration made the decision it did.

Mr. BRENNER. Let me try to help explain that, which is that there's a technical basis, there's an analytic basis for that decision. You quoted from an earlier draft that we had done last year. Since then, we have done additional analyses of the hydrocarbon related issues, and as we did the additional analysis of the hydrocarbon related issues, what we found is that we could not clearly say that hydrocarbon emissions would remain the same. In fact, they could go up if the oxygenate waiver was granted.

Mr. WAXMAN. It seems to me you're arguing a technical point. We can sit here all day and argue that technical point. But if in another month from now people are looking at higher prices of maybe 20, 30 or 60 cents a gallon for gasoline, and they're buying a gasoline that may even pollute more than what they could do otherwise. No one's going to accept this very technical, legalistic analysis to deny us what makes just good common sense.

And States' rights seems to be a proposal, not a proposal, but a philosophy of Republicans, here the States want to do what's right and they're being denied the opportunity to do it for its own citizens.

Mr. BRENNER. The waiver, Congressman Waxman, was to take effect at the end of next year, at the end of 2002. So, we're not looking at an immediate impact on the fuel supply. That does provide an opportunity to work through ways to best provide gasoline for California without disruption.

Mr. WAXMAN. Refineries have to make investments today to meet any changes a year or two from now. If we don't make the issue clear, they're not going to know how to make their investment, and we're not going to have the gasoline that we need for our citizens at the prices they ought to be paying down a year or two from now.

Thank you, Mr. Chairman.

Mr. OSE. Thank you. We're going to wrap this panel, I have a couple of followup questions. I want to followup on Mr. Waxman's comment, or observation, about the technical issues. Are we talking about technical in the sense that it's chemistry or are we talking about technical in the sense that it's statutory? Obviously, there's something there that exists in statute or in physics or something. Is it statutory or is it chemistry?

Mr. BRENNER. There is a statutory requirement that we examine the air quality impact of the waiver. Then when we did that examination, we used air quality models and engineering and gasoline supply models to make that determination.

Mr. OSE. Congressman Waxman refers to a report, and I'm sorry I don't have it, and you had indicated there was a subsequent report. Can we enter the report in the record? Without objection.

[NOTE.—The report may be found at <http://www.epa.gov/oms/regs/fuels/rfg/ro1016.pdf>.]

Mr. BRENNER. I can help you with that—

Mr. OSE. I just want to get the chronology here, to make sure we have the most current data we're receiving testimony on.

Mr. BRENNER. I believe what Congressman Waxman has is a draft that we had produced earlier as we went through this process of evaluating California's waiver. We have since developed additional analyses and the final decision was issued earlier this week and was sent to the State of California. The State of California received our decision and a copy of the analysis that backed up the decision.

Mr. OSE. So, we had an early report or a draft or whatever, and then we had a final, is what you're telling me. I'm trying to figure out which is it that we're basing policy on. Are we basing it on the draft or the final report?

Mr. BRENNER. We based our decision on the final version, of course.

Mr. OSE. Was it, the final said that the statutory requirements were X, whereas the draft said there were things that could be done to address X?

Mr. BRENNER. They both of course had the same statutory requirement in them, but in the first version, we had thought based on the information we had at the time that the statutory requirement could perhaps be met. Then based on additional information, we found that we were not able to say it could be met.

Mr. OSE. All right, I want to make sure that we get both the draft and the final in the record. I'm going to yield to my friend, but I'm going to maintain my time as chairman.

Mr. WAXMAN. I thank you for yielding. I was one of the authors of the Clean Air Act in 1990. We provided a reformulated gasoline requirement, with an oxygenate formula minimum. And we said, you can get a waiver. But we didn't want States to get waivers where they're going to do environmental damage. So we said, in order to get a waiver, you've got to show that keeping to the requirement of the law is going to hurt the environment.

EPA did an analysis. And they said they thought it could hurt the environment, and therefore, they were recommending the waiver. The administration denied the waiver, and then EPA sent us a subsequent report saying, well, they're not sure that it would be

harmful to the environment if California keeps to its requirement in the law.

But if you step back from that, for California to meet the requirement of the law, parts of the State have to use a fuel that's different than what the rest of the State uses. California could use the same fuel for everyone in the State at a lower price, because in order to meet the oxygenate requirement, it costs more money. In order to meet this oxygenate requirement, because we're no longer using MTBE, we have to get the ethanol and there could be a disruption of that supply.

So, we're looking at a ridiculous situation in California by not having this waiver. That's why you and I and all the members of our delegation wanted this waiver. The only explanation that anyone could come up with why the administration would turn this request down, which EPA supported originally, is Archer Daniels Midland. They're the ones who make the ethanol requirement for reformulated gasoline. There's no environmental reason to do it. It's a higher price that we're asking people to pay, with a possible disruption in supplies. And if we're looking at the next crisis in gasoline, well, we're going to have a crisis in California, because this waiver has been denied. To me it doesn't make sense.

Mr. OSE. I appreciate my friend offering those remarks, and I want to—this is the part that I'm trying to get clear, and you might know the answer to this. As I understand it, the waiver denial was issued on Tuesday of this week, and the draft report, I don't recall the date on that, but the draft report was issued some months ago or some weeks ago?

Mr. BRENNER. It was not issued. But somehow it was obtained by both the State of California and by the Energy and Commerce Committee. This was last year that they asked for it. And, I can explain the difference.

Mr. OSE. I'm just trying to get the chronology right. If I remember correctly, I heard that there was the draft, then the waiver, denial, and then the final report was issued. Was the draft prepared and then the final was prepared and the waiver was denied, or was the draft prepared, the waiver was denied and the final report was written?

Mr. BRENNER. No, there was a draft prepared, it was not publicly released. However, copies of it were obtained by outside sources. Since then, we did additional analyses, found additional environmental concerns, prepared our final report and based on that final report, made the decision to deny the waiver request.

Mr. OSE. OK. I'd be happy to yield.

Mr. WAXMAN. I would submit the following chronology. EPA was working over a 9-month period on this staff report. Their staff report recommended that the waiver should be granted. I believe that the head of EPA concurred in that decision. Then it went to the administration and the administration decided not to grant the waiver, and therefore, another further report was prepared to show on a technical basis that EPA was not sure that there would be an adverse environmental result if the waiver were granted. First they were, and now they're saying they're not sure. That's why they're turning us down on the waiver.

But the fact of the matter is, the waiver should be granted for all these other reasons, and it was denied for no reason except, seems to me, the obvious special interest conclusion of the people who wanted to make gasoline with this ethanol in it.

Mr. LATOURETTE. Mr. Chairman, may I make some observations about that, if we're going to make observations?

Mr. OSE. Yes, you may.

Mr. LATOURETTE. That's a pretty serious allegation I think you're making, Mr. Waxman. Mr. Brenner, you're not a political appointee, as I understand, you're the acting Mr. Perciasepe, I think we talked about before, right?

Mr. BRENNER. That's right.

Mr. LATOURETTE. Is there anything—and how long have you been with the EPA?

Mr. BRENNER. I've been with the EPA for over 20 years now.

Mr. LATOURETTE. And the Republican and Democratic administrations have put you at the EPA, if I have my history correct?

Mr. BRENNER. That's correct.

Mr. LATOURETTE. Are you aware of anything to validate or buttress what Mr. Waxman has just said? Do you concur with the final report?

Mr. BRENNER. Yes, I did sign off on the final report. As I indicated, there is a technical report that buttresses the decision that was made, that explains the decision that was made. We've provided that report to California and we'll provide it to the committee.

Mr. LATOURETTE. Were you directed by Governor Whitman or the President or Vice President or anyone in the administration to reach that conclusion, that even though it conflicted with what you knew as a career member of the U.S. EPA?

Mr. BRENNER. No, we were not directed to reach that decision. [The information referred to follows:]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JUN 27 2001

OFFICE OF CONGRESSIONAL AND  
INTERGOVERNMENTAL RELATIONS

The Honorable Douglas Ose  
Chairman, Subcommittee on Energy Policy,  
Natural Resources and Regulatory Affairs  
U.S. House of Representatives  
Washington, D. C. 20515-0503

Dear Chairman Ose:

Thank you for the opportunity to testify before your subcommittee on Thursday, June 14, regarding the Environmental Protection Agency's reformulated gasoline (RFG) program. I have reviewed the Federal News Service draft transcript of the hearing and am concerned that one of the answers I gave could be misinterpreted. According to the draft transcript (page 39), the following exchange took place:

Mr. LATOURETTE: Were you directed by Governor Whitman or by the president, the vice president or anyone in the administration to reach that conclusion, that even though it conflicted with what you knew as a career member of the U. S. EPA?

Mr. BRENNER: No, we were not directed to reach that decision.

To clarify my answer and to ensure that it is not misinterpreted, please modify my answer as follows:

Mr. BRENNER: No, we were not directed to reach ~~that~~ a decision *that conflicted with what I knew as a career member of the U.S. EPA.*

Thank you for the opportunity to provide this clarification.

Sincerely,

Robert D. Brenner  
Acting Assistant Administrator

cc: Congressman Steve LaTourette  
Congressman Henry Waxman

Mr. LATOURETTE. Do you own any Archer Daniels Midland stock that would put you in conflict?

Mr. BRENNER. No, sir.

Mr. LATOURETTE. Thank you very much, Mr. Chairman.

Mr. OSE. Thank you, Mr. LaTourette.

We're going to wrap this up. I do want to ask a couple of questions. You've indicated there's a statutory constraint to granting the waiver that California has requested. What I'm trying to find out is, can Congress provide statutory flexibility whereby California can be granted the waiver that it requested, and how would we go about doing that?

Mr. BRENNER. Currently in the act, and I want to just say, as an aside, probably a highlight of my career definitely has been working with Members of Congress on the Clean Air Act amendments of 1990, however, that provision in there that deals with waivers from the oxygenate requirement is a fairly narrow one that deals just with the air quality effects.

So, we would need to take into account more than just the air quality effects in order to be able to grant that sort of waiver. And as I've indicated, that's something that, whenever you change the fuel supply, it has a fairly broad set of implications across the economy. Undoubtedly, there would be a number of other stakeholders that would want to comment on any change such as that.

Mr. OSE. Are you familiar with former Congressman Bilbray's legislation in 1999 to provide California the flexibility for such reformulated gasoline?

Mr. BRENNER. I'm sorry, I'm not.

Mr. OSE. OK. I'm referring to H.R. 11 from the last Congress, that had significant support, 51 of 52 Members of Congress from California supported it. I'm curious whether this might offer, this particular legislation, if updated, might offer a vehicle whereby we could provide some resolution in a timely manner, so that statutorily, EPA could come forward to grant the waiver.

Mr. BRENNER. We could certainly look at it and report back to you on what we think the implications of legislation like that might be.

Mr. OSE. I just want to emphasize, we're all up here trying to find solutions to this. Because all of our people are paying, whether it be in Mr. Tierney's district in Massachusetts or Mr. LaTourette's or mine or Mr. Otter's, Mr. Waxman's, all our people are paying extra and we don't like it. If there's something we can do to alleviate that, we want to do it. So, you may well get a written question.

We're going to leave the record open. I want to make sure everybody's aware of that. We're going to leave the record open for some written questions. I want to thank both of you for coming. It's been a long hour and a half, you've been very gracious.

We'll take a 5-minute break.

[Recess.]

Mr. OSE. The subcommittee will come to order.

We'll swear in our witnesses, so if you'd all rise and raise your right hands.

[Witnesses sworn.]

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

Joining us on our second panel is Dr. Don Coursey, who is professor at the Harris School of Public Policy, University of Chicago; Mr. Robert Slaughter, the general counsel for the National Petrochemical and Refiners Association; Mr. Ben Lieberman, who's a senior policy analyst for Competitive Enterprise Institute; and Mr. A. Blakeman Early, who's an environmental consultant for the American Lung Association.

Gentleman, I welcome you. We appreciate your taking the time from your day to come.

Dr. Coursey, you're recognized for 5 minutes. We all have your written testimony. I know we've all read it. So if you could summarize, that would be great.

**STATEMENTS OF DON L. COURSEY, AMERITECH PROFESSOR OF PUBLIC POLICY, UNIVERSITY OF CHICAGO, AND POLICY SOLUTIONS, LTD.; ROBERT SLAUGHTER, GENERAL COUNSEL, NATIONAL PETROCHEMICAL AND REFINERS ASSOCIATION; BEN LIEBERMAN, SENIOR POLICY ANALYST, THE COMPETITIVE ENTERPRISE INSTITUTE; AND A. BLAKEMAN EARLY, ENVIRONMENTAL CONSULTANT, AMERICAN LUNG ASSOCIATION**

Dr. COURSEY. Thank you for inviting me today. I am an economist from the University of Chicago, and my interest in looking at this is from a market viewpoint. That's what I do for a living, study markets.

People like to look at Chicago historically and think that we invented markets and invented transactions. Markets have been around for a long time. People traded corn, wood, and wheat. What the great invention of the Chicago markets were over 100 years ago was the commodification of these things, the corn, the wheat and the wood. And the definition of a commodity, instead of bringing corn or wheat to the docks and have people individually go through it, the commodification of these things allowed people to just trade them freely.

There were difficulties at that time as well in defining different types of corn, but we managed to work our way through that. Now we can trade corn fit for human consumption, corn fit for animal consumption. That was the invention of Chicago, the commodity. And that's what led to the emergence of modern markets.

It may come as a shock to you today, but I strongly feel that there is no such thing as a gasoline market in the United States today. Rather, I think the situation is much better described as a set of regional oligopolies.

Why? The invention of commodities in Chicago meant that everything was a perfect substitute for everything else. If corn was needed in Iowa, it would move there. And what would attract it would be prices. The corn could come from Wisconsin, it could come from North Dakota, whatever. So, one of the conditions for forming a market is the commodification of whatever you're trying to trade.

The second reason why I think we have regional oligopolies as opposed to a marketplace is because there are few sellers. There are great returns of scale in the refining and distribution business. You're going to end up, given current technologies, with at most a handful of people serving in an individual region in a country.

The third reason has to do with entry restraints and the difficulty of setting the refining capacity. I'll return to that.

All these have led to higher prices for gasoline, and everybody here has commented on that, I don't need to repeat that. But, I want to emphasize something about volatility of prices in a moment.

Oil bashing seems to be quite a great spectator sport right now. Someone earlier in the morning commented on the Wall Street Journal article regarding my area of the country, Chicago, and the problems having to do with Marathon and BP-Amoco, or now just BP, serving the Chicagoland area. But, I would urge the committee to consider the challenges of being a refiner these days. I think a lot of people have the opinion that refiners take crude oil, smash it up, turn it into other products, and distribute it around the country.

That is, as I argue in my testimony, the easy part. Marathon and BP in my area will have raw product. The price of that raw product is often dictated many thousands of miles away. And they've got it, what are they going to do with it? They have to decide, what flavor do they want to produce? Do they want to produce for the Milwaukee-Chicagoland region? Do they want to produce for Ohio? Do they want to produce for somewhere else, do they want to produce for North Dakota?

When are they going to produce it? You can only make one of these at a given period of time, you can't stop and 5 minutes later start making another one. There are turnaround times.

Where are you going to send it? Additionally, the product doesn't go directly out the front door into people's cars. It has to go through pipelines. Indeed, many of the additives in the Chicagoland area have to come through their own pipeline, of which BP or Amoco have no control over. There are refining constraints in place. These refineries require maintenance periods, shutdown periods, and how do you plan them into the schedule?

And last and not least important, it's all subject to fixed general stocks, such as changes in the weather patterns, changes in consumer behavior, and changes in the behavior of OPEC, of which the Chicagoland area has very little control over, of course.

So, I would argue that running a modern refinery, given the current regulations, is very similar to running an airline, which as we know has not been an easy thing to do over the last 4 or 5 years as well. Both airlines and refiners are subject to heavy capacity constraints, the airlines, in terms of airplanes and increasingly runway space. The changes in consumer demand patterns that can occur, and again shocks such as weather or other external factors. It's very, very difficult to begin with, to run a refinery, and you're adding a degree of complexity that's mind boggling on top of that.

A lot of people here have focused on the higher average prices. And when OPEC moves the prices up and down, it's inevitable that regular gasoline, reformulated gasoline, everything's going to move up and down with them. That's just the law of supply and demand. What I think has not been focused on as much is the volatility produced when all these additional regulatory constraints are imposed upon refiners. It's the volatility in places such as Chicago that really attracts people's attention.

Earlier you asked about the Ohio consumers, driving to work 1 day at \$1.50, coming home in the evening at \$1.75. That's not at all unusual in my part of the country as well. I think one of the things that's left unnoticed is that oftentimes prices will fall equally as much. I don't think we see 25 cents over the course of an 8 hour working day, but they can come down as much as they can go up. It's the volatility that drives people quite crazy in my region, as well as the average prices.

I argue strongly in my—

Mr. OSE. Dr. Coursey, you need to wrap up here.

Dr. COURSEY. OK. So, to put this all together, perhaps what the perspective of the committee might be is to consider a return back to the future. Figure out ways to get the interested parties together and recreate a commodity of gasoline. We had gasoline as a commodity for a long time in this country. The United States doesn't need 50 blends of gasoline, it doesn't need 30, 20, 18, 20, there's all kinds of numbers floating around. Perhaps we need as few as four.

But once that is accomplished, then the problems that you see out in places like California or in my area will tend to take care of themselves naturally. The easiest way to attract resources to your area is to provide people incentives to send them there.

[The prepared statement of Dr. Coursey follows:]

**Remarks Prepared for the Subcommittee on  
Energy Policy, Natural Resources, and Regulatory Affairs**

14 June 2001

**Don Coursey**  
**Ameritech Professor of Public Policy, University of Chicago**  
**and Policy Solutions, Ltd.**

Mr. Chairman and members of the committee. Thank you for inviting me today. I ask that my written comments be entered into the records of the committee. What I would like to do now is to briefly summarize the results of my analysis of the gasoline and energy distribution system in our country.

**1. Introduction**

I make my living as an economist on the faculty of the University of Chicago and as a consultant for sensitive environmental matters. My expertise is markets and, as you know, Chicago has been the center of the commodity markets for more than a hundred years.

The key point I want to make today is this. This may come as a shock, but there is no such thing as a "gasoline market" in the United States today. Nor is there an electricity market in the United States today. Thanks largely to well-intentioned environmental rule-making over the years, America now has a gasoline distribution scheme that unnecessarily produces more than 20 different varieties of gasoline, each controlled by a classic regional oligopoly or monopoly. It is no wonder that these industrial structures has caused sky high gas prices in their various regions all over the country.

Currently, oil-company bashing is all the rage in our country. This week alone, two main companies that serve my Chicagoland region found themselves in the news, Marathon Ashland and BP Amoco (Wall Street Journal, 12 June 2001, page A4). The FTC is currently investigating whether gasoline supply was deliberately held back from the market by these companies to control Chicago prices last summer. But consider the challenges that face a company like Marathon.

Most Americans know that a refiner simply takes crude product, manipulates it into consumer products, and delivers it to the pump. That is the easy part. Today, because of regulations, the refiner must decide

- Domestic natural gas production, while growing, still has not kept up with demand and has not returned to where it was in the early 1970s.
- Imports of crude oil and refined petroleum products are increasing.

#### Current Energy Consumption Patterns

According to the Energy Information Administration's (EIA) Annual Energy Outlook 2001, total U.S. energy consumption in 2000, by fuel source, was:

- 39% oil
- 23% natural gas
- 22% coal
- 16% nuclear, hydropower and non-hydro renewables

This seems like a reasonably diverse mix of energy use. However, critical sectors of the economy are heavily reliant on a particular energy source.

For example, barring unforeseen technological advances, petroleum products will be needed to provide the vast majority of transportation fuels for at least the next decade or longer. EIA estimates that petroleum use for transportation will increase by 5.6 million barrels per day (MMB/D) between 1999 and 2020.

#### U.S. Refining Infrastructure Needs Attention

Domestic refiners are increasingly challenged to meet current energy demand. Since 1983, the number of US refineries has decreased from 231 to the 152 that are operating now. While total refining capacity has remained relatively stable throughout this period, the demand for our products has increased dramatically. Thus, for a substantial period of the last year, refineries were running at or near their operational maximum. The overall U.S. refinery utilization rate peaked at 97% last summer and was as high as 94% in December (based on EIA data). As the attached graph from the recent National Petroleum Council (NPC) study ("U.S. Petroleum Refining: Assuring the Adequacy and Affordability of Cleaner Fuels") shows, U.S. demand for petroleum products exceeds domestic refining capacity, hence the growth in refined petroleum product imports (see attachment 1).

Due to both financial and regulatory constraints, it will be very difficult to construct new refineries in the United States. Indeed, no new refinery has been built in 25 years. The rate of return on investment in refining has averaged about 5% in the last decade. This is roughly equivalent to the return from an investment in Treasury bills, but with much greater risk. During the same period, refiners made substantial capital investments to meet environmental requirements – investments that the NPC estimated exceeded the book value of the entire refining industry.

To maintain or increase capacity, refiners must make expansions at existing sites. The alternative is to meet increased demand with increased imports of petroleum products. As demand for petroleum products increases at a fast pace in other areas of the globe, however, imported supplies may become increasingly unavailable to us. So it is very unfortunate that EPA's

Colorado grocery shoppers. Colorado corn lovers would only be allowed to buy corn that is specially produced for them, no matter how adequate Ohio corn might be. Corn would not be corn under such a system.

But, as I explain below, we do “tag” energy in this country. There is “Chicago” gasoline, “Houston” gasoline, “Saint Louis” gasoline and so forth in this country. Gasoline is not treated as a commodity in this country. Gasoline is not gasoline under the system of rules currently used in America. This fact is important when trying to understand the so-called “market” for gasoline that delivers fuel to our pumps.

Gasoline was once a commodity in this country. Then, something more closely resembling a competitive market dictated its use and distribution. Perhaps as we look to the future of energy regulation, it would be wise to consider more liberal, past forms of regulation. With gasoline especially, we might well consider going back to the future.

Some will argue that I am proposing to roll-back environmental reforms that have been made over the last thirty years and that have improved air quality in many regions of the country. I am not making this proposal. Rather, as I argue below, it is easily possible to reconfigure the current system of regulation so as to simultaneously produce cheaper fuels and a cleaner environment.

## **2. Energy and Competitive Markets**

An efficient and publicly acceptable energy policy must include a coherent alignment of the following elements: reasonable prices for fuel and power products; environmental safety of the energy sources involving no environmental backsliding; and, reliable infrastructure for the delivery of fuel and energy to users.

The availability of reasonably priced, clean, reliable energy products is best guaranteed by the establishment and nurturing of a free market in energy and its delivery infrastructure. The fundamental conditions associated with the creation and operation of a competitive market are: homogeneity of the energy product, the existence of large numbers of buyers and sellers, freedom of entry and exit into and from the market, absence of artificial restraints on the buyers and sellers, and knowledge about prices and profits.

Contrary to most popular belief, we do not have anything resembling free markets in fuels and energy. For a competitive market to exist, product must be made into commodities, or commodified. This means that each unit of product is then a perfect substitute for another unit. The commodification of energy is not a

reality in the United States today. There are over 20 recipes for gasoline to suit different regions of the country; and many regions of the country are prohibited from using another region's formulated gasoline. Power can be transferred between states. However, a myriad of regulations treats power from different regions, from different sources, and from different transmissions lines differently. Electrical power comes with too many regulatory tags attached to truly function as an economic commodity.

### **3. Implications for the Energy Markets**

As a result, the goal of a reasonably priced market in clean, reliable fuel is currently frustrated by highly intrusive government intervention into the market. Two primary packages of government regulations interfere with the operation of the energy market: direct command-and-control regulation of the energy industry and environmental regulation that affects how the industry must operate. This regulatory intervention has resulted in the fragmentation of the nation into multiple niche markets, with specialized fuel and energy requirements peculiar to micro-geographies, and highly complex, time consuming multi-jurisdictional requirements and procedures for the siting, construction, and operation of critical infrastructure. Two of our most important products, gasoline and electricity, are currently delivered in boutique fashion to regional or state level sub-markets. Further, this complex regulatory geography is unstable, subject to multiple, unpredictable changes, which make mid- to long-term capital planning and investment in needed infrastructure unduly risky and counterproductive. The system currently in use results in higher than competitive market price levels and larger, more volatile, price adjustments.

Reform of the current system is needed to allow greater fungibility of fuels and energy products, and flexibility to move fuels and products over greater market areas. This requires the throttling-back of governmental micromanagement of fuels under the Clean Air Act, where federally mandated recipes for fuel create micro-markets for Chicago, different from the micro-market of St. Louis, the micro-market of Houston, the micro-market of Detroit, etc., etc. Federal law requires so many different fuels, peculiar to micro-areas in the country, that the emergence of a real national market is impossible. Similar constraints hinder the efficient transfer of electricity within and between states. The conditions of fungible product and flexible movement of the product are impossible under this current regulatory scenario, and this must be remedied by allowing broader regional markets to emerge without governmental micro intervention.

At the same time, it is necessary to replace the multiple regulatory fragmentations of facility siting, construction and operation, with clear, simple principles and processes, so that the capital investments in critical infrastructure can be made by the private sector. The investment in critical infrastructure, including refineries, generation facilities, storage facilities, transmission and distribution systems, and pipelines necessary to deliver energy and fuel to users, is made hyper-risky by the multiple, and often conflicting

requirements of federal, state and local regulations, agencies and political pressures. Likewise, the multi-layered governance structures affecting energy, including numerous state regimes, the Federal Energy Regulatory Commission, the Environmental Protection Agency, Department of Energy, the courts and the Public Utilities Holding Company Act, micromanage the service territories of electrical companies and invoke a system of price impacts upon power generators and distributors that inhibit competition in the marketplace for power. Reliable energy is held hostage by unreliable regulatory structures.

#### **4. Providing a Context: Comments Regarding Energy Efficiency and Economic Performance**

In a broader context, it is also important to ask how wealth, energy, environmental, and health outcomes are related to the regulatory structure that governs energy commerce. A recent study I helped write entitled "Environmental and Public Health Outcomes: An International and Historical Comparison (Harris School of Public Policy Working Paper 00.01, The University of Chicago, Don Coursey and Christopher Hartwell authors, March 2000) focused on the link between economic freedom, energy usage, and environmental quality using information about the historical experiences of 130 counties over an interval of years 1960 through 1992.

An important conclusion from this analysis is that more repressive regulatory regimes of energy regulation lead to less efficient use of natural resources, higher levels of emissions, and poorer public health outcomes.

Another conclusion from the analysis is that less regulated energy markets lead to the most conservation. Over time, the background force of technological progress produces significant reductions in the use of energy resources.

#### **5. Policy Implications**

Removal of the regulatory choke points that currently overlay and distort energy services and infrastructure is necessary if we are to have reliable, cost efficient, and environmentally sound energy. Market reforms to achieve this should be the focus of Congress and the Bush Administration as they attempt to move the United States into a new, deregulated energy system.

The key insight associated with market reform is the fact that when energy becomes more like a commodity, it can be easily moved from one region of the country to another; from regions where it is wanted less to regions where it is wanted more. When energy is made more of a commodity, this process can happen faster and deliver to consumers what they want when they want it. Consumers who experience

high demands for energy will pay a price in such a system - they will need to attract the resource away from someone else by paying higher prices. However, these higher prices will most certainly be below those experienced in the currently constrained system. And, the higher prices will send signals to energy producers that certain regions of the country ought to be the focus of their infrastructure investments. This new investment will in turn have a moderating influence of both average prices and on the volatility of prices.

Making energy more of a commodity also requires a determination of environmental standards that can be applied in a common-sense fashion over broader expanses of our country. The first question that must be considered is how to choose a standard that applies to the broad range of climates and other background conditions in the country. From an economic perspective, fewer different standards will produce more efficiency. Indeed, it is almost certainly probable that if a single, strict emissions-based standard was in place at the national level that average energy prices would actually be lower than we see today. While consumers would pay higher prices for environmentally friendly energy, this effect would be more than offset by the competitive forces of a large national energy market free to compete anywhere and at any time to provide these forms of energy.

Thank you very much for your time and attention. I look forward to your questions.

Mr. OSE. Thank you, Dr. Coursey.

Mr. Slaughter, for 5 minutes.

Mr. SLAUGHTER. Thank you, Mr. Chairman.

I'm here today on behalf of NPRA. The Association's members and owners operate 98 percent of U.S. refining capacity. We also have as our members most petrochemical manufacturers.

A lot of the current information about the market has been given out today by EIA. Obviously we're in a situation in which we've had record production of gasoline by refiners over the last 2 months, some addition even to inventories. Prices over the last couple of weeks have generally been declining. There is reason to believe that we may get through this summer all right, the heavy driving season, provided there are no unforeseeable problems, such as there were and which triggered events in the Midwest last summer.

And frankly, I think that some considerable credit should go to the men and women in the refining industry for all they've done over the last few months to turn this product out in very severe situations.

But of course, we have underlying problems, which we've talked about today. My first chart over here shows that we have no longer really any excess capacity in the United States, excess refining capacity. The top line, the light green line, represents demand, the dark green line, capacity. We obviously over the last several years no longer have that cushion. That means a tight supply demand balance.

We're dependent on imports. Projections are that gasoline demand will grow by 1 to 2 percent over the next several years. There really are no projections that refining capacity will grow to meet that. With no new refineries since 1976, and it's becoming increasingly difficult to add capacity at existing sites, which is the major way that we add capacity in this country, because of reinterpreted rules and restrictions that EPA is in charge of.

So, you can't count on the refining industry being able to add the capacity we need unless we make some policy changes.

We currently import 700,000 barrels of refined product to help us meet demand, and we're not always going to be able to depend on that increment of supply. Other societies are growing, economies are growing and they want some of that gasoline as well.

Now, basically, I think we ought to move to a few of the issues just very quickly that have come up several times, so we can talk about these issues. We are concerned about the Unocal patent. We do think that's having an impact on gasoline supplies. We have asked the FTC to look at Unocal's conduct in participating in Federal and State regulatory activity, and then patenting these particular blends. We hope that the FTC will look at it. We think it does have an impact on gasoline supply.

The next chart is a bar chart that shows you all the different regulations that face the refining industry over the next 10 years. There's roughly \$20 billion of investment required. It's going to be very difficult to do it all, particularly the diesel sulfur rule.

Some people want to take great umbrage that we suggest that this is not a perfect rule. It's not a perfect rule. It requires that 80

percent of diesel be reduced from essentially 500 parts per million now to 15 parts per million in 2006, that 80 percent of diesel be reduced, at a cost of \$8 billion, to that level, to meet only 5 percent of demand in 2006 and 2007. That overlaps almost exactly the period for the reduction of gasoline sulfur from the current 500 parts per million to 30 parts per million average. Double programs, EPA refused to sequence them. There's not really any demand for 15 parts per million diesel in 2006, but the industry is under the gun to have to make it.

We want to thank Chairman Ose, Mr. Burton and Mr. Horn for their efforts to encourage California officials to exempt refineries from rolling electricity blackouts. We need that exemption in order to keep products flowing in California, and we thank you for that.

On the California oxygenate waiver, I would just like to point out one—

Mr. OSE. Mr. Slaughter, I appreciate your thanks, as does Mr. Burton and Mr. Horn, our concern was the consumers and the impact of shutting you guys down.

Mr. SLAUGHTER. We understand. On the California waiver, I would like to point out one fact that was not mentioned earlier, which is that the waiver was pending at EPA for 23 months, and the previous administration didn't grant it either. They didn't explicitly turn it down, but they didn't grant it, either. Our members are of two minds on the waiver. Our refiner members would support the waiver, and want relief from the 27% requirement. We also do have some MTBE manufacturers who wouldn't agree with that position. But again, I wanted to clear the record and say that it had been pending there under two administrations.

The new source review program we think needs a second look. It's going to get one under the President's recommendations. It is a road block to improving and expanding capacity, installing new technologies, even undertaking basic maintenance procedures now at refineries. We think it deserves a look. There's room for improvement. People who say that it's the best that can be invented have got a hard case to make, if you look at its history.

The boutique fuel chart; it's up on the other screen as well. People want to argue about how many fuels there are. There are 14 to 16 on this map. There are different grades of those: there are geographic grades, there are seasonal grades, there are a lot of gasolines out there.

These maps were generated last summer when people in the Midwest wanted to understand what the gasoline distribution system really looks like. The 1990 Clean Air Act set out essentially a three gasoline system but local choice, economics and politics have made it look like it does. The energy industry has to optimize this map to deliver gasolines, and this situation as well looks like something that could deserve a second look. The administration is going to take another look at it and everyone can participate in that review.

Mr. Ose, and members of the committee, I think I'll leave it there, and look forward to your questions.

[The prepared statement of Mr. Slaughter follows:]

Testimony of the National Petrochemical and Refiners Association (NPRA)  
Before the Energy Policy, Natural Resources and Regulatory Affairs Subcommittee  
Committee on Government Reform  
U.S. House of Representatives  
June 14, 2001

Good morning, I am Bob Slaughter, General Counsel of the National Petrochemical and Refiners Association (NPRA). I thank you for this opportunity to offer our views on gasoline supply and other issues involved in setting national energy policy. NPRA represents almost 500 companies, including those who own or operate roughly 98% of domestic refining capacity as well as petrochemical manufacturers with processes similar to refiners.

NPRA's members supply consumers with a wide variety of products used daily in homes and businesses. These products include gasoline, diesel fuel, home heating oil, jet fuel, lubricants and the chemicals that serve as the "building blocks" in making products as diverse as plastics, clothing, medicine and computers. For many of our members, energy is both an input and output. Thus, the current review of our nation's energy policy is of vital and direct interest to NPRA. Our members are eager to help identify ways to develop additional energy supplies, enhance national security and use energy more efficiently.

Current Gasoline Market Overview

The 2001 summer driving season has begun. Consumers and policymakers are expressing concerns about gasoline price levels and whether supplies will be adequate to see them through this period of peak demand. Unfortunately, NPRA cannot predict price movements or whether, like last summer, unforeseen events will affect supplies in some regions of the country. We believe, however, that continued reliance on market mechanisms will provide consumers with the greatest assurance that adequate supplies will be available at appropriate prices.

We do, however, have some good news to share with the Committee. The U.S. refining industry is once again running at extremely high rates of capacity utilization and is producing record supplies of gasoline. According to the EIA, the industry has been running at a greater than 95% average rate of capacity utilization for the past month. Although there are no guarantees about future prices, in the past month prices have been relatively stable and actually declined in many areas. Although they are still within the low range, gasoline inventories have increased somewhat, providing some assurance to a very "transparent" market.

This continuing record of accomplishment reflects the refining industry's commitment to meet its customers' needs to the very best of its ability. The thousands of men and women in our industry who are responsible for this outstanding effort have good reason to be proud of their accomplishment.

#### Gasoline Prices in Perspective

Gasoline prices are higher than many would like, but, adjusted for inflation, they are well below the record high prices set in 1981. In fact, over the past two decades, nominal gasoline prices (unadjusted for inflation) increased only 25%. This figure should be compared to the comparable figure for new cars (41%) used cars (60%), airline fares (120%) and health care costs (200%). (These are API statistics.) Viewed from this perspective, gasoline prices seem a relative bargain.

Gasoline price levels have risen, however, since the roughly 200% increase in the price of crude oil which has occurred since the fourth quarter of 1999. And consumers are much more likely to compare current gasoline prices to those in 1998 or early 1999 (when crude prices averaged \$10 rather than today's \$29-30), than they are to reach back in their memory to 1981's \$2.62 average price (inflation adjusted). Crude oil costs are the largest component of the gasoline price, except for taxes.

#### Uncertainties Remain

Once again, the wild card in the deck this year is whether we will experience unforeseen problems such as those that occurred in the Midwest last summer. If we do, consumers could experience supply and price disruptions until supplies are sent to the affected area. Prices probably rise as they did in the Midwest last summer until supply/demand equilibrium is achieved. Again, this is **not** the likely situation for this summer. The industry's production efforts to date make it more likely that, given a normal summer, supplies will suffice and prices will be relatively stable. But it would be irresponsible for us not to point out that the underlying supply/demand balance is still rather precarious. EIA said much the same thing in Mr. Cook's May testimony before the Energy and Commerce Committee; no less an authority than former FTC Chairman Robert Pitofsky made a similar observation when the FTC released in March of this year its findings on the investigation of summer 2000 Midwest gasoline prices.

Put in its simplest terms, the underlying reason for continued uncertainty is that the supply/demand balance in the gasoline market has tightened over the years. This is due to steadily increasing gasoline demand (Americans drive larger cars greater distances; the U.S. experienced a major economic expansion in the last decade) and flat refining capacity in the United States (no new refineries since 1975; limited opportunities for expansion; low returns on investment). An extensive and pervasive overlay of intricate and conflicting regulations completes the picture and often intimidates all but the most intrepid of potential investors in this part of the energy industry.

#### Capacity Restraints Exist

As the number of operating refineries declined from slightly more than 200 in 1990 to the 152 today, the nation's cushion of excess refining capacity also disappeared. Today's 95% refinery utilization rates enable the industry to meet increasing demand with the help of a modest level of product imports; it would be nearly impossible to run the refining equipment at a higher rate for

any significant period of time. In addition, equipment changes and plant expansions have been made increasingly difficult by regulatory-induced uncertainties.

#### Unocal Gasoline Patent

In addition to regulatory constraints, NPRA is concerned about the impact of Unocal's gasoline patents on supplies of certain gasolines. Gasoline manufacturers who are concerned about potential liabilities under the patents may choose to avoid making certain types of gasolines or blendstocks entirely. Alternatively, they may attempt to blend around the patent, resulting in reduced supplies of gasoline due to the nature of this process and the greater chance that reprocessing may be necessary. We believe that the FTC should determine whether Unocal's actions in the California and federal regulatory proceedings furnish grounds for remedial action under the FTC's statutory authority. Individual refiners have made similar requests of the Commission.

#### The President's Recommendations

The President's Energy Policy recommendations acknowledge that fundamental problems face the downstream sector, and propose a course of action to help solve those problems. NPRA commends the President and Vice President for their honesty and courage in pointing out unpleasant truths and not shrinking from measures necessary to address them. We urge members of Congress from both parties to give the President's plan a fair hearing, and to contribute their own opinions and suggestions as the debate proceeds.

#### Other Issues

NPRA offers the following comments regarding specific issues involving gasoline supply and prices.

On calls for yet another FTC investigation of gasoline prices and supply--the FTC completed earlier this year **two** separate investigations of gasoline pricing behavior. One involved the West Coast and the other last summer's Midwestern situation. In each study the Commission found no illegal conduct and brought no charges. In his testimony before the Senate Commerce Committee earlier this year, former FTC Chairman Pitofsky said that roughly one-third of the entire Bureau of Competition's budget in the last three years has been spent on study and investigation of gasoline markets and competitive behavior in those markets. He explained to his extensive involvement in each of three major mergers in the energy industry and the actions he took to protect and maintain effective competition in those markets as part of each of the mergers which he reviewed. These efforts by the FTC certainly constitute the most far-reaching and intensive examination of gasoline and other petroleum product markets in several decades, and it was conducted by one of the recognized experts in the field of antitrust law.

Perhaps perpetual accusation and investigation is the price such a visible industry must pay in order to operate in a free market. This often seems to be the case, even though refining returns are historically below the average of all industries. If so, that helps explain why capital often is

put to other uses than investments in refining. But it would be consoling if those who call for new investigations do take time to read the results of nearly identical investigations so recently concluded. They should also examine Mr. Pitofsky's testimony in the Senate, or at least review his comment regarding the Midwestern investigation that "while there were many short-term causes of the increases, the underlying lack of U.S. refining capacity threatens similar price spikes in the future in the Midwest and elsewhere" and then consider what steps are really necessary to remedy the situation.

On California refineries threatened by rolling blackouts--NPRRA thanks Chairmen Ose, Burton and Horn for their letter urging Governor Davis to exempt California refineries from rolling blackouts. Even the temporary loss of electrical power threatens long-term outages for refineries and lost supplies of critical petroleum products for consumers. We understand that Governor Davis has sent a letter to the California PUC requesting similar action. Our members who operate in California appreciate your help on this matter and your continued interest in normalizing the electricity situation in the state.

On denial of the California oxygenate waiver--this recent decision indicates that no political consensus exists regarding the future of the reformulated gasoline oxygenate requirement. Our refining members supported the waiver and favor elimination of the oxygenate requirement nationwide. They believe that this action would provide flexibility needed to respond to regulatory action (such as that in California) which eliminates or restricts use of MTBE. NPRRA petrochemical members who are MTBE manufacturers believe that the identified environmental concerns associated with MTBE usage are manageable and that the positive impacts of MTBE usage, especially on air emissions, should not be ignored, despite potentially adverse impact on water supplies.

Apparently, the debate about oxygenate-related issues will continue in the Congress and elsewhere, until some resolution of the issue is achieved. NPRRA has urged policymakers to provide adequate lead-time and flexibility for refiners to comply with any fuel specification changes that result from actions taken to address this issue. We have also urged policymakers who are considering this issue to take into account the significant volumetric contribution to fuel supply provided by MTBE in the large majority of RFG markets where it is the oxygenate of choice.

#### Part II--Extended Discussion of Policy Issues

More detailed NPRRA comments on the current energy supply situation follow. So do a discussion of EPA's new source review program, more information on boutique fuel requirements and a short statement of NPRRA's concerns about the EPA's program to reduce sulfur in on-highway diesel.

#### Our Goals

In this extended portion of our testimony, NPRRA seeks to:

- provide our perspective on the current energy situation and how it developed;

- highlight several key regulatory programs that have made, or will soon make, it more difficult to meet consumers' energy needs; and
- identify certain policy principles that can be used to shape new energy policy directions.

#### Recent History

In the past year or so, consumers have felt supply and cost impacts from disruptions in heating oil, gasoline, natural gas and electricity markets. Weather, unforeseen equipment problems, and changes in consumer demand patterns can play a role in affecting supply and increasing costs, but government policy is also a major factor determining whether adequate supplies of energy will be available at reasonable cost.

It has been many years since a serious national debate on energy policy took place. For much of the last decade or two, low prices and plentiful supplies have enabled consumers to take energy for granted. As a result, policies have often been pursued in a piecemeal fashion, with no serious attention paid to their impact on energy supply or on the mix of energy supply sources. We have missed the "big picture" because we don't determine the cumulative impact of regulatory programs. We also fail to balance other important national goals such as environmental improvement with the need to maintain reliable domestic energy supplies. Too often, we have not acknowledged the difficult tradeoffs inherent in major policy decisions. Economic reality eventually catches up with us, however.

The recent energy situation has been characterized by:

- 1) significant concerns about heating oil prices in the Northeast last winter after a prolonged cold snap;
- 2) shortages of gasoline in the Midwest early last summer with prices that exceeded \$2 per gallon;
- 3) natural gas prices that hit a record high this winter resulting in consumer heating bills estimated at triple last year's levels; and
- 4) rolling blackouts in California and very high electricity prices throughout the West with concerns about the ability to meet electricity demand in other parts of the country this summer.

Overall, our national energy policy has resulted in the following:

- Refining capacity is stretched to its limit and the prospects for expansion are limited by regulatory policies.
- The nation's energy delivery infrastructure is aging and increasingly overwhelmed by demand, with new construction and/or expansion made more difficult by regulatory impediments.
- Domestic oil production is declining.

- Domestic natural gas production, while growing, still has not kept up with demand and has not returned to where it was in the early 1970s.
- Imports of crude oil and refined petroleum products are increasing.

#### Current Energy Consumption Patterns

According to the Energy Information Administration's (EIA) Annual Energy Outlook 2001, total U.S. energy consumption in 2000, by fuel source, was:

- 39% oil
- 23% natural gas
- 22% coal
- 16% nuclear, hydropower and non-hydro renewables

This seems like a reasonably diverse mix of energy use. However, critical sectors of the economy are heavily reliant on a particular energy source.

For example, barring unforeseen technological advances, petroleum products will be needed to provide the vast majority of transportation fuels for at least the next decade or longer. EIA estimates that petroleum use for transportation will increase by 5.6 million barrels per day (MMB/D) between 1999 and 2020.

#### U.S. Refining Infrastructure Needs Attention

Domestic refiners are increasingly challenged to meet current energy demand. Since 1983, the number of US refineries has decreased from 231 to the 152 that are operating now. While total refining capacity has remained relatively stable throughout this period, the demand for our products has increased dramatically. Thus, for a substantial period of the last year, refineries were running at or near their operational maximum. The overall U.S. refinery utilization rate peaked at 97% last summer and was as high as 94% in December (based on EIA data). As the attached graph from the recent National Petroleum Council (NPC) study ("U.S. Petroleum Refining: Assuring the Adequacy and Affordability of Cleaner Fuels") shows, U.S. demand for petroleum products exceeds domestic refining capacity, hence the growth in refined petroleum product imports (see attachment 1).

Due to both financial and regulatory constraints, it will be very difficult to construct new refineries in the United States. Indeed, no new refinery has been built in 25 years. The rate of return on investment in refining has averaged about 5% in the last decade. This is roughly equivalent to the return from an investment in Treasury bills, but with much greater risk. During the same period, refiners made substantial capital investments to meet environmental requirements – investments that the NPC estimated exceeded the book value of the entire refining industry.

To maintain or increase capacity, refiners must make expansions at existing sites. The alternative is to meet increased demand with increased imports of petroleum products. As demand for petroleum products increases at a fast pace in other areas of the globe, however, imported supplies may become increasingly unavailable to us. So it is very unfortunate that EPA's

permitting programs and the retroactive reinterpretation of New Source Review (NSR) rules have made expansion of existing capacity an even more formidable challenge. I will discuss this later in greater detail.

#### Environmental Progress Has Been Significant

Since there are few currently viable substitutes for petroleum-based transportation fuels, the emphasis in environmental policy has been on reducing emissions and making petroleum products cleaner burning. Since the Clean Air Act Amendments of 1990, refiners:

- reduced the volatility of gasoline (as measured by its RVP);
- introduced oxygenated fuels in carbon monoxide nonattainment areas;
- reduced on-highway diesel fuel sulfur levels;
- introduced federal reformulated gasoline in 1995 with a second phase requiring even more stringent emission reductions in 2000.

Refiners face even more challenges ahead. As this chart demonstrates (see attachment 2), an avalanche of new environmental requirements faces refiners – and most fall within the same narrow time period for implementation. NPRA estimates that some \$20 billion must be spent over the next decade to comply with newly issued or anticipated gasoline and diesel fuel requirements. The recent closure of one Midwest refinery is a reminder that all existing refineries may not continue to operate.

#### Many Different Types of Gasoline Are Required

The product distribution structure is already severely challenged, even without new fuel requirements. This chart (attachment 3) was prepared by ExxonMobil and identifies current fuel requirements within different regions of the United States. A complicating factor in recent years has been the addition of area-specific and state requirements (so-called "boutique" fuels) to the federal programs already in place. As you can see from this map, more than 16 categories of gasoline are represented (14 shown in color on the map plus conventional gasoline meeting Northern and Southern volatility requirements). Assuming three grades (regular, midgrade and premium) of each type of gasoline, almost 50 distinct gasolines are represented on this chart. And that is before any new requirements are considered.

Pipelines and fuel terminal operators struggle to keep all these grades separate. In the future, they could be faced with the need for additional segregations and new storage tanks to maintain compliance and fuel integrity. Yet, they too are faced with additional constraints on their operations and, like refiners, find it difficult to expand their facilities.

The many different fuel requirements have led to increased volatility in gasoline markets and to reduced flexibility in shifting available supplies to areas that need fuel the most. As we saw in the Midwest last summer and California previously, differing fuel specifications can severely limit the

ability to move supplies to areas that are short. The petroleum refining and distribution industry has worked hard to optimize this situation, which is results from both over-regulation and political choice. The boutique fuel phenomenon is ripe for study and reform, but proposed changes must be carefully considered and adequate lead-time provided for their implementation. Any solution that increases the cost of manufacture will put additional domestic refining capacity at risk and should be rejected.

#### A Tight Supply/Demand Balance Has Predictable Consequences

NPRA believes that U.S. policymakers have paid too little attention to the supply side of the energy supply equation. This causes serious problems when demand steadily increases due to unprecedented economic growth (as in the recent past). If demand exceeds supply, market economics operate and price becomes the allocation mechanism for any available supplies. The result is a supply disruption and price spike such as that seen last summer in Chicago. The former Chairman of the Federal Trade Commission (FTC), Robert Pitofsky, in the Commission's recent report on Midwest gasoline prices, noted that "while there were many short-term causes of the increases, the underlying lack of U.S. refinery capacity threatens similar price spikes in the future in the Midwest and elsewhere."

Looking ahead, fundamental changes in energy markets have increased the potential for supply constraints and price volatility. Due to these changes, it is even more important that future government policies be fully evaluated to determine and understand the impact on energy supplies. But first we must deal with several current initiatives that pose threats to future energy supplies.

#### New Source Review Reform is Essential

Most significant is EPA's New Source Review enforcement initiative, which, for refiners, began in 1998-9. EPA has engaged in retroactive reinterpretation of its permitting rules – the effect is to change regulatory policy without public notice and opportunity for comment as required under the Administrative Procedures Act. In so doing, EPA has targeted two energy providers that already face increasing difficulties in meeting consumers' energy needs -- utilities and domestic refineries.

EPA has reinterpreted its rules covering modifications to existing facilities long after those modifications have been completed. In effect, EPA is seeking to penalize those who acted in good faith but who failed to comprehend the incomprehensible—EPA's reinterpretation of its own rules after the fact. Companies face potential fines in the millions of dollars and they are pressed to install equipment at their facilities that is not required by law or regulation. This situation has caused great confusion and uncertainty in the refining industry during a critical period. Four refining companies have settled with EPA simply in order to get on with their business, others are talking with EPA and some have begun or are considering legal challenges to EPA's actions.

EPA's enforcement reinterpretations center on three elements of the NSR permitting requirements: 1) the provisions allowing exemptions for routine maintenance, repair and replacement activities; 2) calculation of whether an action resulted in significant emissions increases using a discredited method for determining emissions based on "potential" rather than

actual emissions; and 3) unrealistic requirements to aggregate and assess potential changes to the facility which may, in fact, never occur.

Senators Inhofe and Breaux recently sent a letter to Vice President Cheney questioning EPA's approach. We agree with their concern that unless addressed, "...EPA's implementation of NSR permitting requirements will continue to thwart the nation's ability to maintain and expand refinery capacity to meet fuel requirements." We also agree that "EPA's NSR interpretations have created great uncertainty as to whether projects long recognized to be excluded from NSR permitting can be undertaken in the coming months to assure adequate and reliable energy supplies."

As noted earlier, refiners face an avalanche of new regulatory requirements that will require many facility modifications. The uncertainties surrounding EPA's NSR interpretations will slow down future modifications necessary to produce complying fuels and will discourage refinery capacity expansion. The refining industry's ability to meet consumers' demands for fuels today is based in part upon the same modifications now questioned—retroactively-- by EPA. If refiners had not acted – in compliance with interpretations of the law and regulations at the time – consumers would be worse off today, facing reduced fuel supplies and higher costs. Unless capacity can be further expanded to meet increasing demand, future domestic fuel supplies will grow tighter and markets even more volatile.

NPRA is encouraged that the President's energy recommendations include studies of the prospective and retroactive impact of the New Source Review program. It is time to reassess this program, which limits American industry's ability to modernize its plants and take advantage of technological advancements. Of course, for the sake of equity, any future action will need to consider those who have settled with EPA so as not to place them at a disadvantage.

We clearly cannot afford to continue the failed NSR policies of the past few years. The current uncertainty threatens the implementation of key environmental programs such as the Tier II low sulfur gasoline program. This program begins in 2004 and requires numerous refinery modifications. Yet, because it is both difficult to determine when an NSR permit is needed and very time-consuming to secure permits, the NSR program may delay or even prevent the timely introduction of cleaner burning fuel.

#### Policy Improvements Can Increase Flexibility

It will be important not only to address the problems of the past, but also to consider improvements for the future. For example, flexibility in meeting requirements could be enhanced by greater use of market-based incentives in permitting programs. The effectiveness of market-based incentives has been demonstrated in the successful sulfur dioxide trading program implemented under the acid rain provisions of the Clean Air Act. Administrator Whitman, in her recent letter issuing EPA's FY2000 Annual Report, highlighted the importance of these types of incentives.

Ideas such as cap and trade, averaging and "bubbling" (setting an emissions target for a facility, not for individual processes or pieces of equipment) should be explored as ways to assure

continued environmental progress while providing refiners the flexibility needed fuel supplies. NPRA welcomes the Administration's recently issued executive order that encourages expediting of permit applications and related decisions.

#### Diesel Sulfur Reduction

Another EPA initiative that could severely jeopardize fuel supplies and economic growth is the ultra-low sulfur diesel program quickly adopted in the waning days of the previous Administration. The refining industry is committed to lowering sulfur in diesel fuel, having offered its own proposal to reduce sulfur by 90% from today's levels. However, EPA adopted a less cost-effective program by choosing a reduction of 97% and an effective date of 2006. As a result, future diesel fuel supplies are in jeopardy and vital parts of the economy are at risk. Most goods in the US are shipped by truck, including agricultural products.

Regarding the threat to fuel supplies, Charles River Associates (in a study commissioned by API) determined that the EPA proposal would result in an average supply shortfall of 12% versus current supplies. However, that is a national average and regional shortfalls could be greater – Charles River Associates estimates that the Rocky Mountain region could face a shortfall of 37%.

To make matters worse, the program's effective date forces refiners to make major investments in the same timeframe that they must modify refineries to produce low sulfur gasoline. These overlapping timeframes raise serious questions about the availability of the engineering and construction resources needed to tackle both programs simultaneously. As a result, the previously mentioned National Petroleum Council study cautioned that "...a significant risk of inadequate supplies will result."

During the course of the rulemaking, the agricultural community, food marketers, trucking industry and even the Department of Defense raised concerns about diesel fuel availability and cost. And the nation's largest producer of truck engines also questioned EPA's analysis of the rule, indicating that its estimate of the potential engine costs (using a combination of as yet unproven technologies) to meet the heavy duty truck standards is some six times higher than EPA's.

NPRA urged EPA to get more information about the rule's impact on supply by requesting an independent analysis by the National Academy of Sciences. We would still welcome such an assessment. Meanwhile, we are pursuing every avenue, including litigation, to focus attention on and to fix a rule that will have severe supply consequences. The current timeframe for this rule should be adjusted. This step would address many of the supply problems associated with this rule without affecting its overall environmental benefits.

#### MTBE-Related Proposals

A third area of supply concern involves proposals to reduce the use of MTBE. The Clean Air Act Amendments of 1990 require the use of oxygenates such as MTBE in federal reformulated gasoline (RFG) to ensure that an average of 2% oxygen by weight is maintained in this fuel. Oxygenates, like MTBE and ethanol, can assist in the production of cleaner burning fuels. They help expand the overall amount of gasoline supplies, add octane for better fuel performance and help reduce the use of other blending components that may make it more difficult to achieve lower emissions. However, oxygenates also present tradeoffs. MTBE can move farther and faster through the soil and into groundwater supplies should there be a spill or leak. Ethanol requires the use of lower volatility blendstocks to compensate for the increase in evaporative emissions. Also, since ethanol rapidly separates out from the gasoline blend when even small amounts of water are present, gasoline blended with ethanol cannot be shipped through pipelines, requiring special blending equipment and additional storage tanks at fuel terminals.

Several states, including California, New York and Connecticut, have set timetables for ending the use of MTBE in gasoline due to groundwater concerns. However, MTBE plays a significant role in supplementing gasoline supplies. MTBE represents about 4% of the nation's gasoline supply on average, and even more in RFG areas on the coasts -- 11%. Thus, we must fully understand the implications of actions to reduce its use on gasoline supplies, and provide for ample lead-time to make any changes.

NPRA supports strong underground tank enforcement efforts and clean up of water already affected by MTBE. Further, if MTBE use is restricted, the 2% RFG oxygen mandate should be eliminated, while the air toxics reductions achieved in RFG with the help of oxygenate blending are maintained. Renewables, such as ethanol, can help expand our fuel supplies, but, given the logistical constraints on their shipment, they should be used where they make the most sense. Ethanol will continue to grow in importance as a source of fuel octane, but forcing its use through mandates will unnecessarily increase consumers' fuel costs.

#### Ways to Improve Future Energy Policy

In closing, NPRA suggests some guidelines for future energy policy:

1. Don't forget the full energy supply chain. Oil and gas are raw materials that must be converted into consumer products and delivered to end-users. As noted earlier, there is a critical need to remove existing impediments to expanding refinery capacity and to seek policy enhancements that maintain, or increase, domestic supplies. Similarly, emphasis should be placed on improving our domestic product distribution infrastructure.

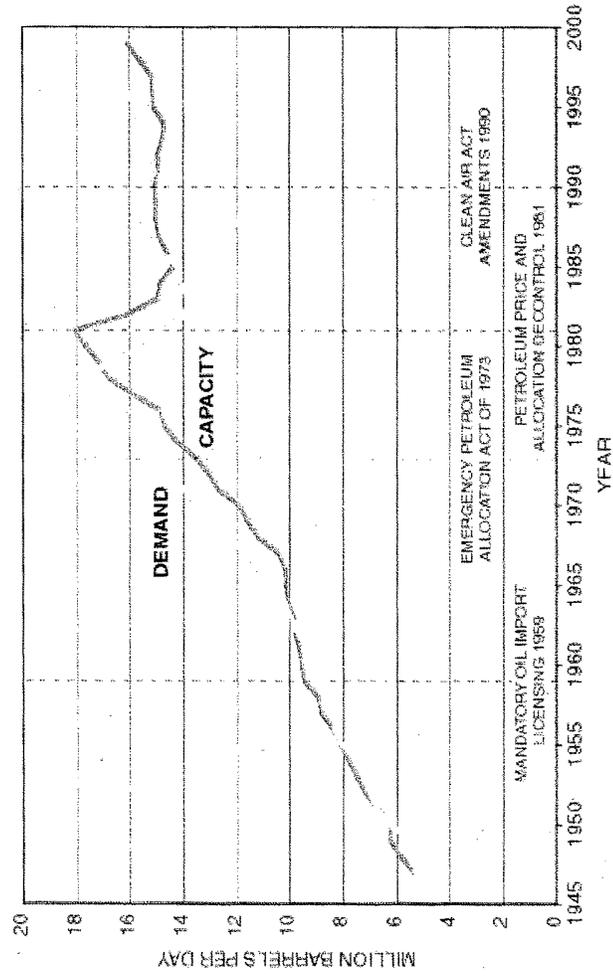
2. Strike a sensible balance. As we know from our own lives, decisions involve tradeoffs. We should work to preserve the dramatic environmental improvements that have been made in the last few decades. However, Americans would also like to continue improving their lifestyles and they desire further economic growth. To honor these goals, we must fully understand the implications of policy choices and carefully weigh the tradeoffs inherent in those choices. We can strike a better balance between environmental goals and the need for reliable energy supplies. These are not incompatible goals, but we must work on the right balance. The right policy tools can help us make more informed decisions and better understand the associated tradeoffs. The President recently took an important step in this direction by requiring that major regulatory actions be accompanied by a thorough energy impact analysis. Similarly, periodic review of the cumulative effects of regulations could help us understand whether the balance is shifting too far in one direction or the other. The President's plan also requires analysis of the cumulative effects of the many fuel regulations currently scheduled for implementation in the near future.
3. Pursue improvements in how regulations are made. Lessons have been learned about how to develop more effective, and more efficient, regulations. It is time to put those lessons to work for us in developing national energy policy. We should set performance goals rather than mandating the use of specific technologies or setting product specifications. The command and control approach stifles innovation. We should avoid overlapping leadtimes for regulatory programs whenever possible. Costs are greater for programs that must compete for goods and services necessary to ensure compliance. We should enhance flexibility through market-based mechanisms and incentives. Emissions credit trading has been demonstrated to lower compliance costs. Incentives could help encourage earlier introduction of cleaner fuels without resorting to unrealistically stringent mandates, which threaten refiners' viability. And we must seek the best information available to inform our policy choices. Reliance on sound science and cost-benefit analyses would help us better understand the full impact of policy decisions.
4. Don't pick a favorite. The nation is best served by a diverse portfolio of energy supplies. For example, the consumption pattern of natural gas is has been changed by government policy. A few still remember the 1970s when concerns about natural gas supplies led, for a time, to prohibition of its use for electricity generation. More plentiful supplies in much of the intervening period have generally erased that memory. Recently, environmental considerations have led to increased natural gas use for electricity generation. This trend seems likely to continue unless we make a serious commitment to improving clean coal technology or change the public's attitude about nuclear power. In fact, EIA projects that natural gas use for electricity generation (excluding cogeneration) will triple over the next two decades. EIA expects that 89% of new electricity generation built between now and 2020 will be gas-fired. Absent additional natural gas supplies in the United States (and Canada) and additional pipeline capacity to transport these supplies, questions arise whether natural gas and natural gas liquids will continue to serve as reliable and affordable petrochemical feedstocks, allowing domestic petrochemical manufacturers to be competitive in global markets.
5. Provide access. Many areas in the United States have been placed "off limits" for oil and gas exploration and development. NPRA understands public concern about protecting the

environment of these areas. However, technology is available to minimize the development "footprint" and to help prevent adverse impacts. Access to promising areas must be provided to spur development of additional domestic oil and gas supplies.

6. Encourage new technologies to revitalize traditional energy sources. U.S. coal reserves are extensive. This fuel could continue to play a key role in our energy equation if "clean coal" research and development is given greater emphasis and encouragement. Coal could make an important contribution in powering future electricity generation in an environmentally acceptable manner. This would allow natural gas (and natural gas liquids) to provide reliable feedstocks for petrochemicals where there are few, if any, substitutes.
7. Promote Conservation While I have concentrated on how to enhance energy supplies today, we cannot forget about the demand side of the equation. Energy efficiency improvements also play a vital role in helping us meet our energy needs. For example, lighter weight materials can assist in improving vehicle fuel economy. Incentives for the purchase of higher fuel economy vehicles might also be considered. Improvements in our roads to improve traffic flow and reduce congestion can also help conserve our energy resources.

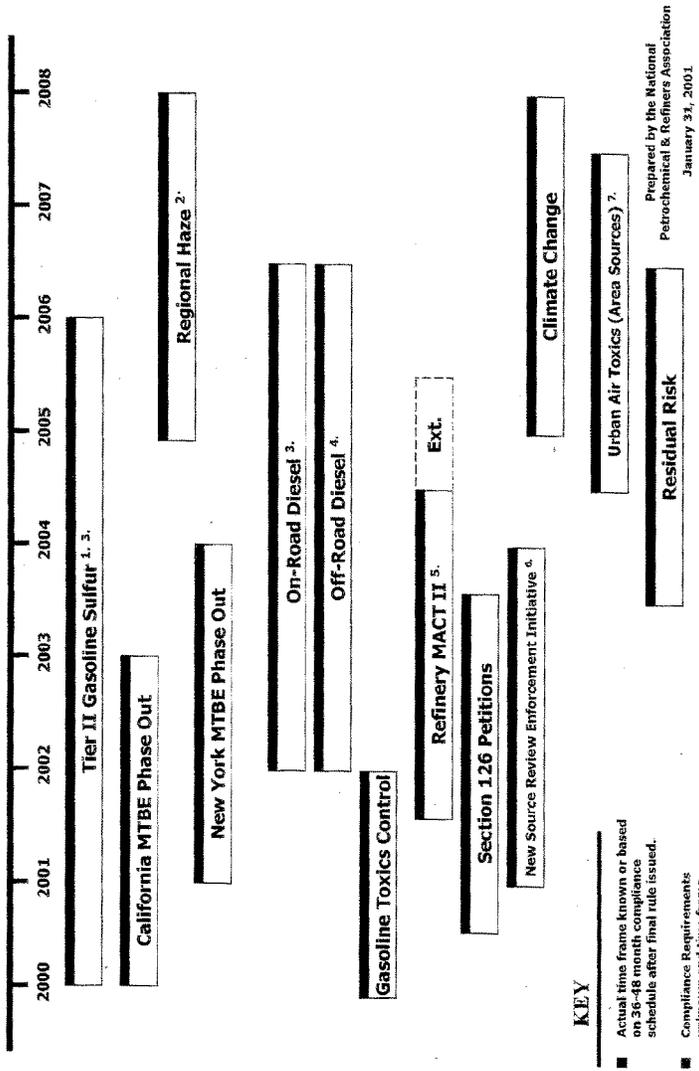
Thank you again for the opportunity to share our views. I look forward to responding to your questions.

Figure 1-1. U.S. Operating Refinery Capacity and Finished Petroleum Product Demand



Source: Data from API Basic Petroleum Data Book and EIA.

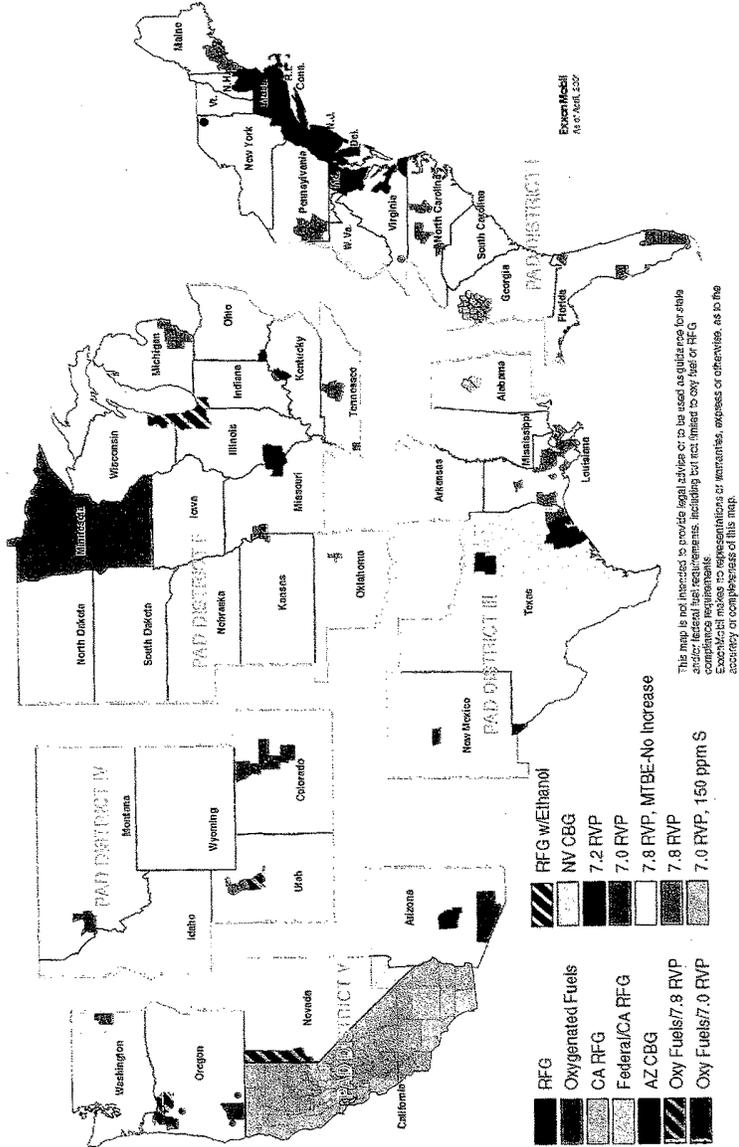
### Cumulative Regulatory Impacts on Refineries, 2000 - 2008



**FOOTNOTES:**

1. Longer compliance time for refineries in Alaska and Rocky Mountain states and small refineries covered by 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. Regional haze State Implementation Plans (SIPs) due 2005-2007. Earliest compliance date. Schedule may be impacted by National Ambient Air Quality Standard (NAAQS) litigation.
3. Longer compliance time for small refiners covered by SBREFA.
4. Estimated effective date based on proposed heavy duty vehicle standards.
5. Compliance date may be harmonized with Tier II schedule.
6. Based on Clinton Administration EPA statements to press. Estimated date for implementation.
7. Urban Air Toxics Strategy includes potential controls of gasoline loading facilities at refineries. Estimated compliance schedule.

# U.S. Fuel Requirements



Mr. OSE. Thank you, Mr. Slaughter.

Mr. Lieberman, for 5 minutes.

Mr. LIEBERMAN. Good morning. My name is Ben Lieberman, and I'm a senior policy analyst with the Competitive Enterprise Institute, a public policy organization committed to advancing the principles of free enterprise and limited government.

Gasoline prices have risen more than 20 cents per gallon on average over the past 10 weeks, with consumers in some parts of California and the upper Midwest recently paying more than \$2 per gallon. As with previous price spikes, Congress has sought to learn why these increases occurred and what can be done about it.

Thus far, most of the attention has focused on allegations of illegal conduct on the part of the oil industry. Consequently, there have been many Federal investigations of alleged collusion of price gouging, and in fact, two Federal Trade Commission reports on previous price spikes have recently been released. However, these investigations have pointed away from industry conduct as the cause of the gasoline price increase.

At the same time, evidence is emerging that the growing Federal regulatory burden is having an effect on gasoline prices, and is a factor in the volatility seen in recent years. In particular, the regulations promulgated under the Clean Air Act, which both dictate the composition of gasoline and place limits on refining infrastructure, are a major contributor to the price of gasoline today.

The 1990 amendments to the Clean Air Act contained a number of motor fuel regulations. For example, we now have specialized blends such as reformulated gasoline and oxygenated gasoline mandated for particular areas. There are also varying requirements applicable to conventional gasoline. The amendments also gave broad discretion to EPA to set additional fuel requirements. As a result, we now have a number of distinct fuel types in use.

Perhaps the most problematic of these provisions is the requirement for reformulated gasoline in the smoggiest parts of the country. Reformulated gasoline must meet several compositional requirements and emissions performance standards. Today, nearly one-third of the Nation's fuel supply is reformulated gasoline, and it currently averages 21 cents per gallon more than conventional gasoline. There are distinct requirements for reformulated gasoline in northern States and southern States and specific summer requirements applicable from June to September.

Despite the higher costs, the National Research Council and others have raised some questions about the extent of the environmental benefits of reformulated gasoline. Some benefits, but not as great as originally anticipated. And in fact, California, as we've discussed, and other States, are trying to get out of certain specific requirements under the reformulated gasoline program.

As I mentioned, reformulated gasoline costs more than conventional gasoline, but the emerging problem is not so much the higher price of individual blends, but the balkanizing effect of so many distinct gasoline types simultaneously in use. In 1999, the Department of Energy's Energy Information Administration stated that "The proliferation of clean fuel requirements over the last decade has complicated petroleum logistics," and predicted that "Addi-

tional clean fuels programs could make the system more vulnerable to local outages and price spikes.”

In fact, one pipeline operator reports having to handle 38 different grades of gasoline, several due to environmental requirements and some due to other requirements. But many of these blends have to be separately refined, shipped and stored.

For those who question whether Federal regulations really are major contributors to the high price of gas, I would suggest taking a close look at the where and when of the highest gas prices, because it matches reasonably well with the where and when of the most burdensome regulations. For example, the prices tend to be highest in the late spring, early summer timeframe. This is the second year in a row that Chicago has been hit with \$2 gas at this time of the year.

This is due in part to the additional complication of transitioning away from winter fuel specifications to the summer specifications. The location of the highest prices, California and the upper Midwest, is not coincidentally the location of the most unique and challenging fuel standards, as well as the most vulnerable refining infrastructures.

In contrast, I've heard a lot of people claim that high gas prices are due to industry manipulation. But I've never heard a logical explanation why big oil gets so greedy in April and May and not the rest of the year, or why they keep picking on Chicago and California and leave other parts of the country alone, or for that matter why they endured long stretches in the 1990's when gasoline prices were at record lows.

Unfortunately, there are a number of new fuel regulations scheduled to take effect in the years ahead, such as the new ultra low sulfur standards for gasoline and diesel fuel. These rules could increase costs further in the years ahead.

Now, the FTC report as to last summer's Midwest gas price spikes further confirms the role of regulation. While the report found no evidence of illegal conduct by industry participants, it went on to list the primary and secondary factors behind the price increases. Many of these factors are related to the regulatory burden, particularly the stringent new requirements for reformulated gasoline that took effect in 2000. In fact, the FTC report could be used as a good starting point for regulatory reform.

In closing, I'd like to offer a few general thoughts on what needs to be done to ensure that gasoline is as affordable as the market will allow. I think there are some good elements in the administration's recently released energy plan, particularly the plan to direct EPA to study ways to reduce the proliferation of different fuel requirements and to streamline the regulations that are stopping refiners from expanding to meet demand. This can be done without sacrificing environmental quality.

One specific recommendation is that Congress amend the Clean Air Act to eliminate the 2 percent oxygenate requirement from the reformulated gasoline program, or at least allow States to opt out of this requirement, as California has attempted to do. The role of Government should be to set environmental end goals for gasoline, not to dictate the specific ingredients and recipes by which those goals are met.

And given the magnitude of recent gasoline price increases, I would urge EPA and Congress to take a look at some of the new fuel regulations scheduled to take effect in the years ahead, and amend them if they threaten future price increases disproportionate to the expected environmental benefit.

Thank you.

[The prepared statement of Mr. Lieberman follows:]



COMPETITIVE ENTERPRISE INSTITUTE

**Testimony of Ben Lieberman, Senior Policy Analyst  
The Competitive Enterprise Institute  
Before the  
Subcommittee on Energy Policy, Natural  
Resources and Regulatory Affairs  
House Committee on Government Reform  
June 14, 2001**

**Hearings on Gasoline Prices**

**Introduction**

Good morning. My name is Ben Lieberman and I am a senior policy analyst with the Competitive Enterprise Institute, a public policy organization committed to advancing the principles of free enterprise and limited government. My comments today will focus on the causes behind the recent increases in the retail price of gasoline.

Gasoline prices have risen more than 20 cents per gallon on average over the past ten weeks, with consumers in some parts of California and the upper Midwest recently paying more than \$2.00 per gallon. As with previous price spikes, Congress has sought to learn why this increase has occurred and what can be done about it.

Thus far, most of the attention has focused on allegations of illegal conduct on the part of the oil industry. Consequently, there have been many federal investigations of alleged collusion and price gouging, and in fact two Federal Trade Commission reports on previous gas price spikes have recently been released. However, these investigations

have consistently pointed away from industry conduct as the cause of gasoline price increases.

At the same time, evidence is emerging that the growing federal regulatory burden is having a substantial effect on gasoline prices, and is a major factor in the volatility seen in recent years. In particular, the regulations promulgated under the Clean Air Act, which both dictate the composition of gasoline and place limits on the refining infrastructure, are a major contributor to the high price of gasoline today.

Fortunately, these laws and regulations were created by the federal government, and they can also be reformed by the federal government. Congress, working with the administration, can cut the red tape and reduce the price of gasoline, yet still provide the environmental protections the American people demand.

### **The Regulatory Burden**

#### **1. The Micromanagement and Balkanization of the Nation's Gasoline Supply**

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 measures, the 1970 Clean Air Act (the Act) 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 emissions have declined substantially, as have ambient pollution concentrations.<sup>1</sup> And the cars and trucks on the road today emit only a fraction of the pollution as did their counterparts in the 1970s.

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<sup>1</sup> Joseph L. Bast and Jay Lehr, The Heartland Institute, "The Increasing Sustainability of Cars, Trucks, and the Internal Combustion Engine," June 22, 2000; Environmental Protection Agency, "Latest Findings on National Air Quality: 1999 Status and Trends," August 2000.

The emphasis changed somewhat with the 1990 amendments to the Clean Air Act, which contains extensive motor fuel regulations.<sup>2</sup> Specialized blends, namely reformulated gasoline and oxygenated gasoline, were mandated for certain areas of the country. The Act also set standards applicable to conventional gasoline, and granted the EPA Administrator broad discretion to create additional fuel specifications.<sup>3</sup> These provisions were aggressively implemented by EPA Administrator Carol Browner during the Clinton Administration. At the same time, California and other states and localities began to set fuel requirements of their own, often in order to obtain EPA approval of their State Implementation Plans (SIPs). A decade ago, gasoline was a national commodity, but today there are many distinct types of motor fuels in use.

#### A. Reformulated Gasoline

Perhaps most problematic of these provisions was the requirement for reformulated gasoline (RFG), designed to fight smog.<sup>4</sup> RFG is mandated for the nine smoggiest areas of the country as well as any other area determined to be in severe non-attainment for ozone.<sup>5</sup> In addition, several other areas of the country have opted into program. 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. EPA used its discretion to set standards for RFG that

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<sup>2</sup> 42 USC §211.

<sup>3</sup> 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 emission 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.")

<sup>4</sup> Clean Air Act, 42 USC §211(k).

<sup>5</sup> This includes areas in and around Baltimore MD, Chicago-Gary-Lake County IL-IN-WI, Hartford CT, Houston-Galveston-Brazoria TX, Los Angeles-Anaheim-Riverside CA, Milwaukee-Racine, WI, New York City NY, Philadelphia PA, Sacramento CA, and San Diego CA.

are more stringent than those set out in the Act.<sup>6</sup> In addition, there are separate RFG formulations for northern states and southern states, and summer-specific requirements applicable between June 1st and September 15th of each year.

More stringent requirements for RFG took effect in 2000 (RFG II), with particularly tough summer requirements for fuels sold after June 1st. Currently, RFG averages \$1.83 per gallon, 21 cents more than the \$1.62 per gallon for conventional gas.<sup>7</sup>

Despite the higher cost, there are questions about the environmental benefits of using RFG. Although mandated primarily to help reduce ozone, the primary constituent of smog, it is unclear, despite more than 5 years of use, whether RFG has made a difference. A 1999 National Research Council report concluded that “although 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.”<sup>8</sup>

In contrast to its questionable air quality record, RFG has clearly caused water quality concerns. The Clean Air Act requires that RFG contain 2 percent oxygen content by weight. This necessitates the addition of so-called oxygenates, usually methyl tertiary butyl ether (MTBE) or ethanol. Compared to ethanol, MTBE is cheaper and easier to incorporate into the fuel supply, and has become the oxygenate of choice in 85 percent of RFG. A few Midwestern markets, including Chicago and Milwaukee, use ethanol as the oxygenate.

Over the past several years, MTBE in RFG has contaminated water supplies throughout the nation, leading to phaseouts in California, New York and other states, and

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<sup>6</sup> 59 Federal Register 7,716 (February 16, 1994).

<sup>7</sup> Energy Information Administration, Retail Gasoline Prices, June 11, 2001.

<sup>8</sup> National Research Council, “Ozone Forming Potential of Reformulated Gasoline, 1999, p. 4.

federal bills to reduce or eliminate the use of MTBE in motor fuels.<sup>9</sup> In 1999, EPA issued a report calling for reduction in MTBE use in fuels due to its effect on water supplies.<sup>10</sup>

Despite the impending state bans on MTBE, the Act still mandates oxygenates in RFG. The Bush Administration recently denied a request from the state of California to waive the Act's oxygen content requirement.<sup>11</sup>

If MTBE is phased out in these states (or nationwide), but Congress does not repeal the 2 percent oxygen content requirement for RFG, the law would amount to a de facto ethanol mandate. This would almost certainly raise the average cost of RFG in the years ahead.

#### B. Other regulations

Beyond RFG, there are other requirements that dictate the composition of gasoline. There is an oxygenated fuels program, applicable in the winter months in areas not in attainment with the federal standard for carbon monoxide.<sup>12</sup> As with RFG, oxygenated fuels cost more than conventional gasoline.

In addition to specialized blends, conventional gasoline is also regulated. As with reformulated gasoline, there are regional and seasonal differences. For example,

<sup>9</sup> Bureau of National Affairs Daily Environment Report, "Lawmakers Tackle MTBE Issue As EPA Reviews Rule To Ease Ethanol Use," February 21, 2001, at A-11.

<sup>10</sup> Environmental Protection Agency, "Achieving Clean Air and Clean Water: The Report of the Blue Ribbon Panel on Oxygenates in Gasoline," September 15, 1999.

<sup>11</sup> Bureau of National Affairs Daily Environment Report, "EPA Expected to Deny California Request To Produce Non-Oxygenated Gasoline," June 12, 2001, at A-1.

<sup>12</sup> Clean Air Act, 42 USC §211(m); Energy Information Administration, "Areas Participating in the Oxygenated Gasoline Program," July 1, 1999.

EPA has promulgated state and month-specific requirements for Reid Vapor Pressure (RVP), a measure of how readily fuel evaporates.<sup>13</sup>

### C. The Balkanizing Effect

The additional 21 cents per gallon for RFG as compared to conventional gasoline is substantial, but represents only part of regulatory costs of gasoline, as conventional fuel is also subject to regulations that increase its price. But the emerging problem is not so much the higher price of individual blends but the balkanizing effect of so many distinct gasoline recipes simultaneously in use. In 1999, the Energy Information Administration 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.”<sup>14</sup> In fact, one pipeline operator reports having to handle 38 different grades of gasoline.<sup>15</sup> Many of these blends have to be refined, shipped, and stored separately from others.

### 2. The Strain on Refining Capacity

At the same time demand for motor fuels has grown and the challenge facing refiners to comply with gasoline requirements has never been greater, a number of regulatory constraints have impinged upon refinery capacity. In fact, no new refinery has been built in the United States in the past twenty years, due in part to market forces but also to the Clean Air Act’s New Source Review (NSR) and New Source Performance Standards (NSPS) programs.<sup>16</sup> Under these programs, both the construction of new refineries and

<sup>13</sup> Clean Air Act 42 USC §211(h); Environmental Protection Agency, “Guide on Federal and State RVP Standards for Conventional Gasoline Only,” March 2000.

<sup>14</sup> Tancred Lidderdale and Aileen Bohn, Energy Information Administration, “Demand and Price Outlook for Phase 2 Reformulated Gasoline, 2000,” April 7, 1999.

<sup>15</sup> *Id.* at 9.

<sup>16</sup> 42 USC §§160-169, 170-178; 42 USC §111.

major modifications to expand capacity at existing refineries are subject to strict procedural and substantive requirements.

1997 represented a turning point of sorts for domestic refining capacity. Over the past decade, capacity has been able to modestly increase through expansion at existing facilities. But during the summer of 1997, refineries were operating full out, yet still could not keep up with demand.<sup>17</sup> The United States has experienced occasional refining shortfalls since. Currently, refineries are operating at 96 percent utilization, essentially maximum, with little or no margin for error. With only slight capacity growth at existing facilities projected for 2001 and 2002, the refinery capacity problem will not be quickly resolved.<sup>18</sup>

Unfortunately, in 1999 EPA announced a new and more aggressive interpretation of NSR and NSPS as it applies to refineries and coal-fired electric power plants. Previously, routine maintenance at industrial facilities was exempt from these requirements, while major modifications were not. Thus, by retroactively redefining as major modifications many facility projects – most of which were known to EPA when they were performed and treated as routine maintenance at the time – the agency now argues that many refineries were not operating in compliance with the law. Some refiners have announced settlements with EPA rather than endure years of uncertainty from administrative enforcement actions and possible lawsuits.<sup>19</sup> Nonetheless, this enforcement initiative will further complicate any attempts by the refining industry to

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<sup>17</sup> Statement of John Cook, Petroleum Division Director, Energy Information Administration, before the Subcommittee on Energy and Air Quality, Committee on Energy and Commerce, U.S. House of Representatives, March 30, 2001.

<sup>18</sup> *Id.*

<sup>19</sup> See, Environmental Protection Agency press release, "EPA and DOJ Announce Record Clean Air Agreement With Major Petroleum Refiners," July 25, 2000.

meet future demand. The National Petroleum Council, an advisory committee to the Secretary of Energy, has warned that this “[r]einterpretation of NSR rules will significantly hinder the industry’s ability to continue its historical expansion rate.”<sup>20</sup>

### 3. New Regulations on the Horizon

Clearly, the many regulations already implemented under the 1990 amendments to the Clean Air Act are contributing to the volatility and high prices at the pumps. In addition, several more regulations are scheduled to take effect in the years ahead, which will further complicate petroleum logistics and increase the price at the pumps.

Most significantly, EPA recently finalized new rules that will mandate substantial reductions in the sulfur content in gasoline and diesel fuel.<sup>21</sup> These rules are predicted to add to the cost of motor fuels.<sup>22</sup> In addition, they are already having an effect on refinery operations. Despite current capacity shortages in the Midwest, one Chicago refinery recently shut down, in part because of the prohibitive costs of the overhaul necessary to comply with these new sulfur rules.<sup>23</sup> The National Petroleum Council “expects that individual refinery shutdowns will likely continue to occur in the future.”<sup>24</sup>

Further complicating matters is the controversial new National Ambient Air Quality Standard (NAAQS) for ozone, which was promulgated in 1997 but held up by legal challenges.<sup>25</sup> If implemented, this standard will result in many counties currently in attainment with the ozone standard going out of attainment, which would place even

<sup>20</sup> National Petroleum Council, “U.S. Petroleum Refining: Assuring the Adequacy and Affordability of Cleaner Fuels,” at 4 (National Petroleum Council Report).

<sup>21</sup> 64 Fed. Reg. 26,004 (May 13, 1999); 66 Fed. Reg. 5,002 (January 18, 2001)

<sup>22</sup> National Petroleum Council Report, at 9-14; Energy Information Administration, “The Transition to Ultra-Low-Sulfur Diesel Fuel: Effects on Prices and Supply,” May 2001.

<sup>23</sup> Peter A. McKay, Wall Street Journal, “New EPA Rules May Fuel Refiners’ Profits,” February 2, 2001.

<sup>24</sup> National Petroleum Council Report, at 8.

<sup>25</sup> 62 Federal Register 38,856 (July 18, 1997).

more severe operating burdens on refiners and may increase the number of areas using RFG or other specialized blends.

#### **Recent Price Spikes and the FTC Report**

The pattern of recent price increases is a reflection of this costly regulatory burden. Indeed, the when and where of the greatest gasoline price spikes matches almost exactly with the when and where of the most burdensome regulations. The largest increases tend to occur in the April through June timeframe. For example, this is the second year in a row that Chicago has experienced a late spring/early summer surge to \$2.00 per gallon. This is largely due to added complication of transitioning away from winter fuel specifications to summer specifications, at the time of year when demand is picking up.<sup>26</sup> This has been a particular challenge since the stringent new summer requirements for RFG II have been in effect.

The location of the sharpest price increases, California and the upper Midwest, is also traceable to the regulatory burden. These two parts of the country face the most unique and challenging fuel standards.<sup>27</sup> In addition to the federal RFG program applicable in Los Angeles, Sacramento and San Diego, California has instituted its own, more stringent RFG standard applicable in several other areas of the state.<sup>28</sup> Parts of the upper Midwest have opted to use ethanol in RFG, which has posed problems since the new RFG II standards took effect last year.<sup>29</sup> Both areas also have tight local refining

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<sup>26</sup> Statement of John Cook, Petroleum Division Director, Energy Information Administration, before the Subcommittee on Energy and Air Quality, Committee on Energy and Commerce, U.S. House of Representatives, May 15, 2001.

<sup>27</sup> Energy Information Administration, "Summer 2001 Motor Gasoline Outlook," April 2001.

<sup>28</sup> *Id.* at 5.

<sup>29</sup> *Id.* at 8.

capacity, therefore only a relative handful of refineries make these specialized blends. Even a single incident resulting in downtime at one facility has caused supply shortfalls and price jumps in these areas. In addition, neither location is well situated to quickly receive supplies from elsewhere in response to a price spike.

In contrast to the clear link between the federal regulatory scheme and the pattern of gas price increases, there is no such plausible connection to industry collusion and price gouging. Those who blame industry conduct for high prices have not offered an explanation why industry would limit such activities to the April–June timeframe, or why they would zero in on California and the upper Midwest. Indeed, if “big oil” had the ability to pull strings and create \$2.00 per gallon gasoline, and the inclination to violate the law, one would strongly suspect that they would not be so selective in doing so.

The final report of the FTC investigation into the early summer 2000 Midwest gasoline price spike further underscores the role of regulations.<sup>30</sup> Launched amidst allegations of illegal oil industry conduct last summer, the report nonetheless “uncovered no evidence of collusion or any other anti-trust violation.”<sup>31</sup> While exonerating industry of illegal conduct, the report listed refinery production problems, pipeline disruptions, and low inventories as the primary factors behind the price increase. The unavailability in the Midwest of MTBE-containing RFG II, a patent dispute involving RFG, and the waiver of RFG II requirements in St. Louis were listed among the secondary factors.

Many of the primary and secondary factors listed by FTC are directly or indirectly related to the regulatory burden. For example, several of the refinery production problems were due to “difficulty in blending RFG II,” and the low inventories were

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<sup>30</sup> Federal Trade Commission Final Report, “Midwest Gasoline Price Investigation,” March 29, 2001.

<sup>31</sup> *Id.* at 1.

“compounded by the need to drain storage tanks of winter-grade RFG before filling them with summer-grade RFG.”<sup>32</sup> Properly read, the FTC report can be used by Congress as a good roadmap for motor fuels regulatory reform.

The report did discuss the conduct of industry, but declined to list it as a primary or a secondary factor in the price increases. Instead, the forecasting mistakes of some refiners in underestimating both the demand for RFG II and the difficulties in refining it, and the actions of one refiner in not maximizing its RFG II production was relegated to a subsequent section. Unfortunately, some have taken these minor findings out of context and mischaracterized the report as evidence that industry participants created the price spike.<sup>33</sup> One FTC Commissioner, in a concurring statement, stated that the inclusion of this section creates a misleading impression at odds with the overall conclusions of the report.<sup>34</sup>

In addition, the FTC recently concluded an investigation of gasoline prices in California and other western states. It also found no evidence of illegal activity by refiners.<sup>35</sup>

The FTC’s findings were corroborated by the Energy Information Administration and Congressional Research Service, which both found that the new RFG II requirements and other rules were substantial contributors to the 2000 Midwest gasoline price

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<sup>32</sup> Id. at 14, 18.

<sup>33</sup> See, House Democratic Caucus Energy Task Force, “Principles For Energy Prosperity,” May 15, 2001, at 3.

<sup>34</sup> Statement of Commissioner Orson Swindle on the Final Report on the Midwest Gasoline Price Investigation.

<sup>35</sup> Federal Trade Commission press release, “FTC Closes Western States Gasoline Investigation: Investigation Finds No Illegal Activity By Oil Refiners,” May 7, 2001.

increases.<sup>36</sup> The Congressional Research Service estimated that as much as 25 to 34 cents of the per gallon cost was due to the new RFG II requirements.<sup>37</sup>

#### **Conclusion - What Needs To Be Done**

The Bush Administration's recently released National Energy Policy contains several recommendations that, if properly implemented, will go a long way towards ensuring that future gasoline prices are as affordable as the market will allow. In particular, the plan directs EPA to study ways to reduce the proliferation of differing fuel requirements and increase the fungibility of the nation's fuel supply while maintaining the environmental benefits.

The President has also recommended that EPA and the Department of Energy consider ways to streamline the regulations that are impeding refineries from expanding to meet demand. The President has also urged a reassessment of the EPA's new interpretation of New Source Review.

Further, the federal government should also reconsider past efforts to micromanage the nation's gasoline supply. Specifically, the requirement that RFG contain 2 percent oxygen content by weight is largely unnecessary to reduce smog, but complicates the logistics of supplying RFG and increases the price at the pumps. The federal government's role should be limited to setting environmental end goals for gasoline, but should not go so far as to dictate the specific ingredients and recipes by

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<sup>36</sup> Joanne Shore, Energy Information Administration, "Supply of Chicago/Milwaukee Gasoline Spring 2000," undated; Lawrence Kumins, "Midwest Gasoline Prices: A Review of Recent Market Developments," Congressional Research Service, June 28, 2000.

<sup>37</sup> *Id.*

which those goals are met. I would urge Congress to amend the Clean Air Act to streamline the RFG program by eliminating the 2 percent oxygen content requirement.

In addition, in light of the role of regulations in recent gasoline price spikes, I would urge EPA and Congress to take a look at some of the new fuel regulations scheduled to take effect in the years ahead, such as the strict gasoline and diesel sulfur standards. These rules should be amended if they will lead to future price increases disproportionate to the expected environmental benefits. Thank you.

Mr. OSE. Thank you, Mr. Lieberman.

Mr. Early, for 5 minutes.

Mr. EARLY. Good afternoon. I'm very happy to be here on behalf of the American Lung Association, and I'm going to basically chuck my testimony and try to hit on some key issues that I urge the committee to consider.

Talking about this in the same way that Dr. Coursey does, I think it's important to recognize that the American public wants the refining industry to deliver both affordable gasoline and clean air. The American public expects and the Congress has dictated through the Clean Air Act that they deliver on clean air as well as gasoline.

Weakening either the clean fuel requirements or the new source review requirements that will apply to expansions of refineries is going to ensure that the refining industry does not deliver on clean air as much as they are right now. So the American Lung Association very much opposes proposals in that regard.

We also have sponsored public opinion surveys which show the American public is willing to pay more for their gasoline for the delivery of clean air. All the price spikes we've seen have exceeded by a considerable margin the amount of the incremental costs of delivering clean air. It's obviously these other factors, as the previous witness, Mr. Cook, pointed out, such as consolidation of the oil refining industry. Essentially, when you put more of the power of gasoline production and supply in fewer hands, you can't guarantee that weakening clean air requirements is going to result in lower fuel prices, because they just have too much power to manipulate the market.

Briefly, my testimony shows that we believe the refining industry is exaggerating the problems of boutique fuels. I have in my testimony a map, this one, and I apologize that it's difficult to understand. But basically, a lot of the fuel requirements, particularly in the Southeast, the RVP requirements, are essentially the same requirements and don't represent a major impediment to the industry. The RVP requirements for Texas, Louisiana, North Carolina, Tennessee and Florida are essentially identical on that map.

If you take California out of the equation, you take Chicago out of the equation, the number of separate gasolines on that map really goes down to seven gasolines. You multiply that by low test or regular and premium, and there's a total of 14 summertime fuels, not 48 fuels.

Let me also just briefly touch on the Bush administration's oxygenate waiver denial. The American Lung Association is very disappointed in this decision. But, I urge you to consider another factor which hasn't gotten any discussion. There's another special interest that doesn't want this waiver. It's the MTBE industry. And one of the things that we're very concerned about is, the previous administration basically was in favor of a policy that would promote removing MTBE from the entire national fuel supply. The denial of this waiver, from our perspective, would indicate that this administration has abandoned that policy. We think this is very unfortunate, because there's a very strong consensus that removing MTBE from the fuel supply is a good idea for the protection of our

water resources, and that we can achieve air quality goals without MTBE in the fuel supply.

The administration had the opportunity, because of the nature of the evidence, to hang their hook on evidence that would support the waiver or hang their hook on evidence to deny the waiver. Unfortunately, they took the latter course. We're very concerned and disappointed. There's a real opportunity to help California deal with its water quality problems and ensure air quality, and the administration basically did not do anything to help them do that.

Finally, what I'd like to do with respect to new source review is, which has not been discussed too much by the committee today, but we think it's a very important issue, is to submit a letter to the record from the Natural Resources Defense Council to President Bush which discusses the fact that the Environmental Protection Agency has not changed the rules with respect to new source review applications for expansions at refineries or any other industrial expansions.

They're the same rules and the same interpretation of the rules that we've seen for many, many years, going back to the first Bush administration. They ensure that as modernization occurs at industrial facilities, we get a delivery on clean air benefits as well. And we urge you not to consider making changes to the new source review program.

With that, I will conclude, Mr. Chairman. Again, I hope you will be able to include that letter for the record.

[The prepared statement of Mr. Early follows:]

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**Testimony of A. Blakeman Early**  
**on behalf of the American Lung Association**  
**before the**  
**Subcommittee on Energy Policy, Natural**  
**Resources and Regulatory Affairs**  
**House Committee on Government Reform**

June 14, 2001

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For nearly 100 years, the  
American Lung Association,  
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and the American Thoracic  
Society have worked together in  
the fight against lung disease.

Testimony of A. Blakeman Early, before the Subcommittee on Energy  
Policy, Natural Resources and Regulatory Affairs, Committee on  
Government Reform

June 14, 2001

Mr. Chairman, my name is A. Blakeman Early. I am pleased to appear today on behalf of the American Lung Association to discuss matters relating to the national gasoline supply and the price of gasoline. I come to this discussion from an air quality point of view and as a student of the use of clean fuels to achieve air quality benefits.

Let me start by observing that there is a broad consensus that the current public concern over rising gasoline prices derives from a very close correlation between gasoline production and imports and gasoline demand nationally. Domestic production of gasoline has risen slowly over the last decade primarily because large refineries have been expanding production capacity. At the same time a number of small refiners have closed. Refinery expansions have only marginally exceeded the lost supply from these small refinery closures. No new refineries have been built primarily because the return on investment has been low in recent years. It is important to recognize that as fewer and fewer small refiners contribute to the national fuel supply, large refiners gain more power to manipulate fuel supply and fuel price. This is especially true on a regional basis.

**Clean Fuels Help Reduce Air Pollution**

As has been well demonstrated in California, "clean" gasoline can be an effective tool in reducing car and truck emissions that contribute to smog, particulates and toxic air pollution. Based on separate cost effectiveness analyses conducted by both the U.S. EPA and the State of California,

when compared to all available control options, reformulated gasoline (RFG) is a cost-effective approach to reducing the pollutants that contribute to smog.<sup>1</sup> RFG has also been shown to reduce toxic air emissions from vehicles by approximately 30 percent compared to conventional gasoline.<sup>2</sup> It is not surprising, therefore, that many areas striving to reduce smog levels have adopted cleaner fuel requirements. In almost all these areas, some refiners have lobbied for RFG, while others have lobbied for low volatility alternatives generally referred to as "low-RVP". Even the State of Texas, home of the oil industry, adopted a low RVP fuel mandate for the entire eastern half of the state. Now the industry is trying to blame the proliferation of "boutique fuels" as a source for supply constraints and price spikes in gasoline. The American Lung Association believes that this complaint is greatly exaggerated.

#### **Refiners Exaggerate the Clean Fuel Problem**

Refiners have been using the attached map produced by ExxonMobil to claim that there are 48 separate gasoline requirements across the nation that contribute to supply constraints and price spikes. (See Attachment 1) It is ironic that ExxonMobil is at the forefront of this debate given that it posted a \$5 billion in profits in the first quarter of 2001. I hope they are not suggesting we relax clean fuel requirements so they can further increase profits.

More importantly, the math is deceiving. First, refiners multiply all the requirements portrayed on the map by three, representing regular, mid-grade, and premium gasoline. The vast majority of refiners make mid-grade by mixing low test and high-octane gasoline. Thus, one third of the separate requirements claimed by the industry do not actually exist. This reduces the total of alleged separate requirements by 16. It is also not appropriate to count wintertime oxygenated gasoline requirements as part of the problem, since supply shortages virtually never occur in the wintertime. Finally, most experts would acknowledge that difference of .2 RVP among fuels do not represent a significant impediment to shifting fuels from one area to another in order to

relieve temporary supply shortages. This level of difference is within the “compliance margin” used in meeting RVP requirements on average over the course of the summer season.

Clearly, the specialized fuels in both California Cleaner Burning Gasoline, (CBG) and the Chicago/Milwaukee gasoline markets (using ethanol in RFG) represent genuine constraints. However, as you know, an FTC study of the Chicago/Milwaukee price spikes during the summer of 2000 found other factors, including supply manipulation, are much more important. Since almost all of California’s gasoline is produced in state, when production or distribution problems emerge, it is very difficult to bring in supplementary supply from out of state that complies with CBG requirements. Given that California’s fuel and air quality problems are unique, it may not be useful to discuss it in the context of nation-wide supply constraints to gasoline supply.

I have re-designed the legend on the ExxonMobil map to demonstrate that realistically, by excluding California and winter oxy-fuel mandates and merging similar RVP mandates, there are only seven separate gasoline standards. Applied to regular and premium gasoline, the total number of separate gasoline requirements nation wide are closer to 14, less than one third the number asserted by the industry. (See Attachment 2)

**The American Lung Association opposes weakening clean gasoline standards as a strategy for lowering the risk of fuel shortages.** We believe that cleaner gasoline requirements pale in comparison to crude oil price, supply manipulation and other major factors as causes for the remarkable price spikes in gasoline that have been experienced. The oil industry has failed to come forth with data demonstrating that clean gasoline requirements are at the heart of the price spike or supply problem. Perhaps, they could explain why Atlanta, which has a “boutique” fuel requirement of 7.0 RVP and 150 ppm sulfur cap, has had gasoline prices consistently below the national average for conventional gasoline.

**The Bush Administration Oxygen Waiver Denial Adds a "Boutique" Fuel Requirement**

The American Lung Association is greatly disappointed that the Bush Administration denied California's request for an oxygen waiver. The Bush Administration has failed to do the one thing it could to increase gasoline supply flexibility in California while improving air quality. The result will be an ethanol mandate in California beginning in 2003. There is little question that air quality benefits which could have been achieved by California's CBG will be lost and temporary shortages and other supply difficulties caused by the need to import over 500 million gallons of ethanol each year will increase the cost of gasoline in California.

**New Regional Gasoline Standards Should Contribute To Cleaner Air**

Recent discussions of the "boutique" fuel issue have lead to consideration of federal regional fuel requirements. Should Congress consider regional gasoline requirements, we would urge a broadening of clean fuel requirements and not a weakening. Very clearly, a large portion of the nation could benefit from cleaner gasoline and the reduced smog levels such a strategy could help provide. An analysis by the Clean Air Network of the counties that would violate EPA's 8 hour National Ambient Air Quality Standard for ozone (smog) shows that 50% or more counties in each of 26 states would violate the standard.<sup>3</sup> (See Attachment 3) Of course, car and trucks that originate outside counties violating the standard also contribute to the smog problems in most these areas. Looking at the ozone map, a major contribution to clean air could be made by adopting either RFG or a low sulfur, low RVP fuel standard similar to that sold in Atlanta that also meets minimum "drivability" parameters for all gasoline sold the states east of the Mississippi plus Texas, Missouri, and Louisiana. This regional clean gasoline would eliminate variable requirements, while contributing to air quality. As new "Tier II" regulations for fuel phase in 2004, sulfur levels of this regional fuel would drop to 30 ppm on average.

Undoubtedly, refiners will oppose a clean gasoline regional fuel requirement and claim such requirements would shrink gasoline supply rather than increase it. How could they meet new regional requirements while expanding supply? Very simple. Currently many refiners market “super premium” gasoline at 93 octane gasoline when no auto manufacturer recommends or requires a fuel containing an octane number greater than 91. Refiners could make more clean gasoline if they made less “super premium” which consumers do not need. In addition, refiners spend many advertising dollars successfully marketing premium gasoline to twenty percent of the driving public. However, only approximately 10 percent of the vehicles on the road actually need premium gasoline. These are the so-called “high performance” vehicles. Refiners could meet new regional clean gasoline requirements by making less premium gasoline and producing more regular grade clean gasoline instead.<sup>4</sup> (See Attachment 4)

#### **New Source Review Must Not Be Weakened To Facilitate Oil Refining Expansions**

Refiners have complained that recent enforcement actions taken against individual refiners for violations of the New Source Review (NSR) provisions of the Clean Air Act represent a “new interpretation” of the law. They assert that the uncertainties created by EPA about this area of the law will slow down modifications refiners must make to comply with new clean fuel requirements or expanded production capacity.

**Let me be clear. The New Source Review program is the key program in the Clean Air Act that ensures that as our economy grows, we continue to lower the contribution that large stationary sources of air pollution make to unhealthy levels of air pollution. The NSR program does this in two ways. For new sources, such as a new refinery or power plant, NSR regulations require that new sources obtain a permit with emission limits that reflect the use of the current best performing air pollution controls. Normally, these emission limits require pollution control ranging from 70 – 98% determined on a case-by-case basis. In nonattainment areas that**

fail to meet ambient air quality standards, permits must also fully offset a facility's pollution (that remaining after application of best performing controls), and must do so at a higher offset ratio, in order to achieve a net air quality benefit. Thus, the Clean Air Act requires ozone pollution offsets from new sources that achieve a net reduction of emissions ranging from 10 percent to 50 percent, depending upon how dirty an area's air quality is. In other words, in dirty air areas the NSR program ensures that new sources of pollution must help to lower air pollution, not add to the air pollution burden.

For modification of existing facilities, such as refineries, the concept is similar. The Clean Air Act requires facilities that modernize and expand their capacity must also modernize their pollution controls at the same time. They too must meet emission limits that reflect the current best performing controls. If an existing plant is simply conducting maintenance or if it is not increasing its emissions, NSR limits do not apply. Older dirty power plants and refineries can build new units or modernize old facilities without NSR, so long as they commit to keeping their emissions from increasing significantly; minor increases are allowed. When such sources propose to add significant new pollution, they cannot avoid minimizing their emissions and contributing to the achievement of healthy air quality. Since the history of the refining industry is one marked by the closure of small, mostly dirty, refineries and the expansion of large refineries to replace lost gasoline supply, you can begin to appreciate how important the NSR program is from an air quality point of view. The regulations for this program have been the same since the beginning of the first Bush Administration. We believe that claims by refiners that EPA is re-interpreting these regulations are erroneous.

Just as we achieve air quality benefits as new cleaner automobiles replace old dirty vehicles, the NSR program ensures we achieve similar benefits as new and modernized stationary sources replace old dirty ones. **The ALA urges you to support the NSR program as a foundation**

**program of the Clean Air Act.** We believe refiners can make the changes to meet air quality goals and increase refining capacity under the current law and regulations of the NSR program. Surely, it is not too much to ask that refiners, who are making record profits, contribute their fair share to the protection of public health from air pollution.

#### **Conclusion**

The American Lung Association supports clean fuel programs as an effective tool for reducing air pollution. We do not consider variable requirements as a problem that substantially impacts price and supply. If Congress decides to legislate uniform gasoline requirements it must do so with requirements that improve air quality. We further urge that Congress not attempt to modify the New Source Review program, which makes a very valuable contribution toward reducing stationary sources of air pollution in a growing economy.

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<sup>1</sup> U. S. Environmental Protection Agency, Regulatory Impact Analysis, 59 FR 7716, Docket No. A-92-12, 1993.

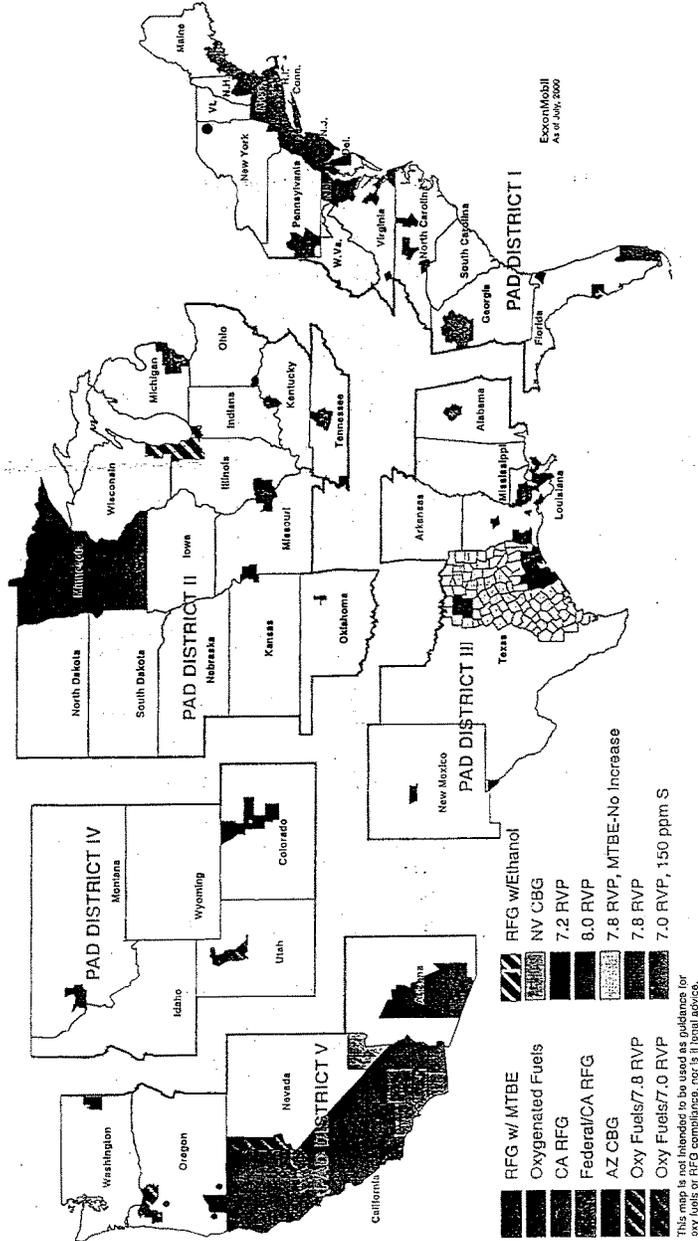
<sup>2</sup> Report of the Blue Ribbon Panel on Oxygenates in Gasoline, September, 1999, pp. 28-29.

<sup>3</sup> The 8-hour NAAQS for ozone is currently undergoing judicial review and has not been implemented.

<sup>4</sup> See Colucci, Joseph M., "A Nickel Ain't Worth a Dime Anymore" and What Are Premium Fuels Worth? *Hart's Fuel Technology & Management*, January/February, 1998, p. 58.

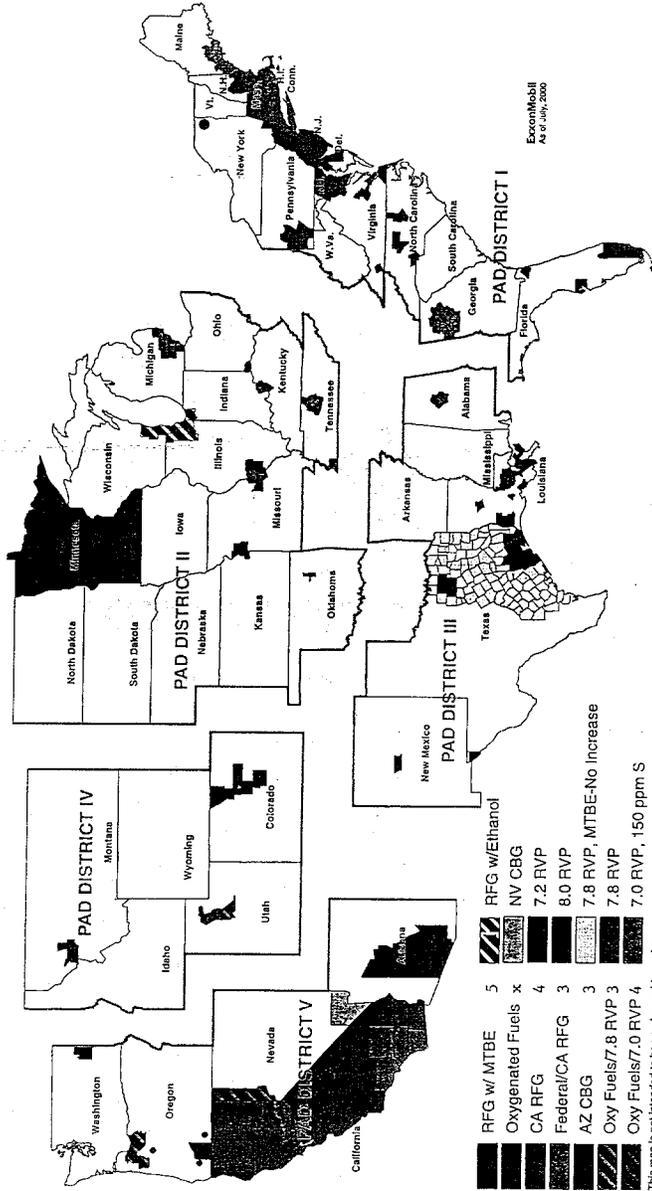
Attachment 1

U.S. Fuel Requirements



This map is not intended to be used as guidance for any fuels or RFG compliance, nor is it legal advice.

Attachment 2  
**U.S. Fuel Requirements**



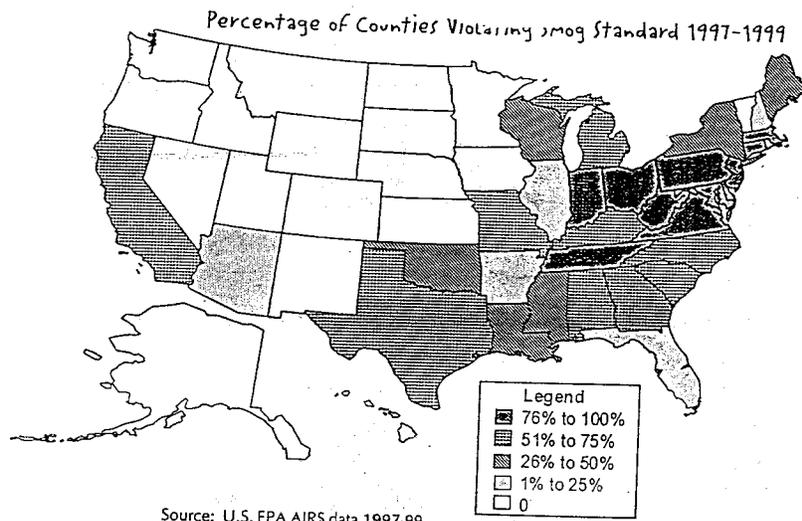
ExxonMobil  
 As of July, 2000

- 1 RFG w/ MTBE
- x Oxygenated Fuels
- x CA RFG
- x Federal/CA RFG
- 2 AZ CBG
- 3 Oxy Fuels/7.8 RVP
- 4 Oxy Fuels/7.0 RVP
- 5 RFG w/Ethanol
- x NV CBG
- 4 7.2 RVP
- 3 8.0 RVP
- 3 7.8 RVP, MTBE-No Increase
- 3 7.8 RVP
- 4 7.0 RVP, 150 ppm S

This note is not intended to be used as guidance for  
 oxy fuels or RFG compliance, nor is it legal advice.

6 Northern, conventional  
 7 Southern, conventional

Attachment 3



## Attachment 4

## THOUGHTS ON FUEL



## "A Nickel Ain't Worth a Dime Anymore" and What Are Premium Fuels Worth?

JOSEPH M. COLUCCI, President, Automotive Fuels Consulting Inc.

Refiners and marketers of automotive fuels in the United States should heed Yogi Berra's sage comment regarding the so-called premium gasolines and diesel fuels they market. There is more and more evidence that these fuels don't and won't provide premium quality, especially for their additional cost at the pump. The automotive vehicle and

provide the premium quality that their name implies. Let's start with gasoline.

### Premium Gasoline

For many years, the distinguishing characteristic of premium gasoline was its octane quality. This was very important 30 or more years ago when leaded gasoline was king, knock-induced engine damage

are generally high-performance vehicles. With all this, octane quality is not as important as it once was, and it should not be the defining property for unleaded premium gasoline.

Other attributes of premium gasoline are not even as good as regular. The American Automobile Manufacturers Association (AAMA) has complained that the Driveability Index of

detergent additives than regulars, but not all. For a gasoline to be a "true" premium, it should be better than regular across the board in providing better vehicle performance, and be at least equivalent in reducing vehicle emissions.

Chrysler has recently taken a strong stand against the use of premium unleaded gasoline in its vehicles designed for regular. The 1998 owner's manuals state, "Your engine is designed to meet all emissions regulations and provide excellent fuel economy and performance when using high quality unleaded gasoline having an octane rating of 87. The use of premium gasoline is not recommended. The use of premium quality gasoline will provide no benefit over high quality regular fuels, and in some circumstances may result in poorer performance."

Chrysler's position is based on its belief that purchase of gasoline with higher octane than recommended provides little or no benefit, and that premium gasolines result in poorer driveability than regulars. Expect other auto manufacturers to follow Chrysler and recommend against use of current premium gasolines.

*Continued on page 58*

*The Driveability Index of premium gasolines averages about 50 points higher than that of regular. This results in poorer driving vehicles and higher tailpipe emissions.*

diesel engine industries are continuing their campaigns to improve the quality of not only these fuels, but all automotive fuels. It seems in the best interests of the fuels industry that they ensure that fuels marketed as premium really are!

The definition of premium found in Webster's Dictionary is "an unusual or high value." I submit that neither premium gasolines nor premium diesel fuels fit this definition, and that it is time to upgrade the fuels to

was considered a serious problem and engine failure resulted in a major expense to the vehicle owner. However, unleaded gasoline has taken over. Engine, cylinder, piston, head and valve materials are stronger and last longer. Most new engines are equipped with knock sensors to prevent heavy knock (that which could cause engine damage). Only a small, and apparently decreasing, percentage of vehicles are being designed to use premium unleaded gasoline, and these

premium gasolines averages about 50 points higher than that of regular. This results in poorer driving vehicles and higher tailpipe emissions. Premium gasolines have higher aromatic content, which leads to more engine deposits and higher toxics emissions. On the other side, premium generally has lower sulfur content, but on average it is not even close to the 30-ppm average that the automakers say is needed for future vehicles. Some premiums have higher doses of

## Thoughts on Fuel

continued from page 10

Premium gasolines nominally cost about 20 cents more per gallon than regulars. To justify the higher price, advertising for premium often aggressively touts its "presumed" benefits. In recent years the Federal Trade Commission has clamped down on at least four major marketers. In its most recent decision, Jodie Bernstein, Director of Consumer Protection, said, "Many consumers buy high-octane gas believing it is a 'treat' or a 'treatment' for their cars. But it's the consumers getting the treatment, not their cars. Most cars don't need and won't benefit from hi-test gas, so paying extra for premium gas is wasting money."

## Diesel Fuel

The market for premium diesel fuel is growing in spite of the fact that there is no recognized definition (at least premium gasoline has a minimum octane value). Marketers are selling their own versions, which may or may not be premium fuels. It reminds me of the initial, haphazard attempts to market reformulated gasolines in the late '80s and early '90s before the EPA and CARB provided standards.

Recently, the National Council of Weights and Measures (NCWM) stepped in to fill the void and provide a definition for premium diesel fuel. Members have done extensive research and have held many meetings with the interested parties. After attending a panel discussion,

"Premium Diesel Fuels—Practical Issues and Benefits," held at the SAE (Society of Automotive Engineers) meeting in Tulsa in October 1997, and reading about the NCWM's program, I conclude:

1. The goal is noble and to be commended.
2. The plan is faulty and needs to be rethought.
3. The end result could be poorer, not better, diesel fuels.

The plan, referred to as the "cafeteria" plan, would allow a marketer to claim that it is selling a "premium" diesel fuel if the fuel complies with two of the five designated performance criteria: energy content, cetane number, fuel injector cleanliness, low-temperature operability and thermal stability. A sixth criterion, lubricity, was omitted for the present for lack of an industry-accepted test. All these properties are important, as are the fuel's emission reduction capabilities, which have so far been ignored.

Allowing a marketer to advertise that it is selling a "premium" diesel fuel if it meets only two of the criteria is a sham. Marketers will look for the cheapest way to get the "premium" designation. They will have little or no incentive to provide fuels meeting more than two of the criteria, unless the NCWM subsequently comes up with appropriate labels, such as "super premium" if they meet three criteria, "super-duper premium" if they meet four and "super-duper-super premium" if they meet all five. This makes a mockery of the system.

Another failing of the NCWM's proposal is that, in principle, it would allow a marketer to sell a truly inferior diesel fuel and still have it labeled as a "premium" diesel fuel. The proposal requires marketers to meet the current ASTM specs for diesel fuel. So a marketer could sell a fuel at the minimum quality level for all fuel properties except the two chosen from the menu and still have the fuel labeled as "premium." In contrast, one selling at the maximum quality level for all ASTM properties, but just below the cutoff levels for all the "cafeteria" properties, would not have the fuel labeled as "premium," even though it would be of overall better quality than the one described above with the "premium" label. If adopted, the current NCWM proposal could lead to a reduction in fuels that truly deserve the label "premium."

The AAMA has developed its Gasoline Specification, and the Engine Manufacturers Association has published its "Recommended Guideline on Premium Diesel Fuel." In addition, the AAMA and its sister societies in Europe and Japan are developing harmonized specifications for gasoline and diesel fuel. The oil industry and the NCWM must work closely with these groups to develop guidelines for premium gasoline and diesel fuel that allow these fuels to be truly superior and deserving of their designation. To do less will further diminish the credibility of the industry in the eyes of the automotive and diesel engine industries and in the eyes of the public. ■

## International Outlook

continued from page 17

Table 3. Unleaded gasoline sulfur levels around the world indicate some surprises

	Sulfur (ppm)	
	Premium	Regular
Germany, Austria, Switzerland	175	176
France	245	466
U.K.	287	348
U.S.	114	341
Central/Southern Europe	124	257
Arabic	151	175
Asia (except Japan)	159	245
Latin America	503	623
Japan	<100	<100

Source: 1994 Solvent Association Inc. International Quality Survey

the wash cost—or less—of RFG production), and partly owing to a low price base that makes cost increases a large-percentage move. Therefore, the result of imposed refining costs may be a burden ultimately and narrowly borne by the refining company shareholders, not the broader public who sees the benefits.

The situation in Europe, where proposed year 2000 and indicative standards for year 2005 require significant reductions in gasoline sulfur, is not nearly so bleak for remuneration potential. Wherever Europe lands it will be easier and less costly incrementally than an equivalent level would be for the U.S. Furthermore, such an increase in cost is apparently more digestible because of the higher base cost of fuel in Europe and thus is easier to recoup at the pump. Political sensitivities are lower as well.

## Remember Cost-Effectiveness

The view that the levels of sulfur outside the U.S. demonstrates that lower sulfur levels are technically feasible, affordable and cost-effective is an incomplete argument because it ignores the circumstances that contributed to the existing levels. It also ignores any questions of need or cost-effectiveness in a purely U.S. context. Reconsideration of the need, and of other options available at lower cost for the same or better results, should be pursued. ■

## Acknowledgments

This article was based on industry/EPA initial deliberations on Tier 2 emission standards. The author acknowledges technical input and peer review by other industry and association members of the API Fuels Committee and Economics Work Group.

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#### Reject the Utility Industry's Attempts to Weaken the Clean Air Act An open letter to President Bush from NRDC president John H. Adams.

This letter -- sent by NRDC president John H. Adams to President Bush on May 7, 2001 -- urges the president to reject industry lobbyists' attempts to block enforcement of the Clean Air Act and any proposal that would weaken the Act's new source requirements for future projects.

May 7, 2001

President George W. Bush  
The White House  
1600 Pennsylvania Ave., NW  
Washington, DC 20500

Dear Mr. President:

Recent news stories report that oil, coal, and electric utility industry lobbyists are urging members of Vice President Cheney's Energy Task Force to interfere with Clean Air Act enforcement actions that the Justice Department, various states, and a number of citizen groups, including NRDC, are prosecuting in federal court. These enforcement actions are essential to protect public health from excessive and unlawful pollution from these industries. The brazen attempt by a number of the defendants in these cases to enlist White House officials in their effort to avoid prosecution should be rejected promptly and publicly by all members of your administration. We ask that you refer to the Department of Justice -- where such matters belong -- all efforts by industry lobbyists to interfere with these cases.

We also urge you to instruct officials in your administration to reject industry lobbyists' attempts to block enforcement of the Clean Air Act and to reject proposals to weaken the Act's new source requirements for future projects.

The Clean Air Act enforcement actions allege that a number of electric utilities and oil refineries have violated the law by making large investments that have significantly increased their emissions of regulated air pollutants without controlling their pollution as required by the Act. Industry lobbyists sought legislative relief from these enforcement cases in 1999, which Congress appropriately rejected; now they are turning to officials in your White House to help block the government's attempt to enforce the law.

Industry lobbyists make several claims, none of them meritorious. First, they claim their investment projects were "routine maintenance" and therefore exempt from the Act's pollution control requirements. Second, they claim that the legal interpretation of the Act's requirements was newly minted by the Clinton administration. Third, they claim that the interpretation is preventing them from expanding production to meet energy supply needs.

Each of these claims is false. Moreover, the first two claims simply repeat legal arguments the defendants' lawyers are making in court. Judges are the proper officials to assess the merits of these claims, not officials in the White House, operating behind closed doors.

Your administration's Justice Department is already on record refuting the first two industry claims. In its February 21 brief in the enforcement proceeding against the

Tennessee Valley Authority (TVA), the Justice Department shows in detail that the projects now claimed as "routine maintenance" were in fact multimillion-dollar capital investment projects designed to substantially extend the life of a number of TVA power plants.

Your Justice Department also has confirmed that the "new interpretation" claim is false. As the TVA brief documents, since its inception in the 1970s, EPA's "routine maintenance" exemption has been defined narrowly by the government, as intended by Congress. See Brief for Respondent United States Environmental Protection Agency, *TVA v. EPA*, No. 00-12310-E (11th Cir.) (Feb. 21, 2001), at 59, 28 ("EPA's narrow interpretation of the routine activity exception most effectively implements the objectives of the Clean Air Act."; "EPA's interpretation and application of the modification rule and the routine activity exception to TVA's projects are wholly consistent with past agency official positions and practice.")

In 1988, the Reagan administration's EPA administrator formally applied the agency's narrow interpretation of the exemption to deny a claim by a Wisconsin utility that its replacement and modernization projects were "routine maintenance." (Letter from Lee M. Thomas to John W. Boston, Vice President, Wisconsin Electric Power Co. (WEPCO), October 14, 1988.) The industry went to court to overturn this interpretation, but the court upheld the government's reading of the law. *WEPCO v. Reilly*, 893 F.2d 901 (7th Cir. 1990). As the TVA brief states, the government's interpretation of the "routine maintenance" exemption has been consistent during the period before and after the 1990 *WEPCO* case.

Industry spokespersons also have claimed that projects to expand energy production at existing plants can be made without increasing pollution but cannot be undertaken because of the Act's new source review (NSR) requirements. That claim is also false. EPA's rules exempt projects accompanied by enforceable commitments to not increase pollution. Moreover, EPA's rules expressly provide that a plant owner can choose a generous baseline pollution level (for electric power plants, the highest pollution year in the past five years; for refineries, the highest pollution year the plant owner shows represents normal operations) and its expansion projects are exempt from NSR if the owner commits to keep the pollution from its expanded operations at the baseline level. Thus, the Clean Air Act and EPA rules do not prevent production increases, they merely require that significant pollution increases be avoided.

Your Justice Department and EPA have reaffirmed this point recently, noting in a successful settlement of NSR enforcement cases against three petroleum refineries that the "settlements will not reduce the capacity of these refineries but will require that their production emit less pollutants." March 21 DOJ and EPA Press Releases, *Clean Air Agreements Reached with Petroleum Refiners*. Attorney General John Ashcroft called these settlements a "victory for our environment," and noted that "[p]rotecting our natural resources through strong enforcement of environmental law is a top priority for the Department of Justice."

Finally, some have urged the White House to change the Act's NSR rules prospectively, defining "routine maintenance" so that major expansion projects could be built without a permit and pollution controls even if pollution increased significantly. We do not believe that such a change could be made without new legislation. More important, such a change would be indefensible environmental policy and would not help meet our nation's energy needs. As governor of Texas you acted to limit the "grandfather" status of existing pollution sources in Texas. As a candidate for president, you pledged to eliminate the "grandfather" status of large pollution sources as a matter of federal policy. Although you rescinded that pledge for carbon dioxide on March 13, you restated the pledge for other major pollutants.

However, if your administration were to attempt to carve out a new exemption for expansion projects under the guise of "routine maintenance" or some other basis, such an action would allow poorly controlled pollution sources to operate in perpetuity without ever cleaning up or retiring. Such an action would convert these large polluters into "grandfathers on steroids."

Nor is any such change needed to allow expansions for energy producing facilities. As mentioned, a plant owner can build any expansion it wishes so as long as the owner commi

...: Natural Resources Defense Council - Reject the Utility Industry's Attempts to Weaken the Page 3 of 3

to not increase pollution above its generous baseline levels.

Your administration should reject industry lobbyists' attempts to block enforcement of the Clean Air Act and any proposal that would weaken the Act's new source requirements for future projects.

Sincerely,

John H. Adams  
President

cc: The Honorable John Ashcroft  
The Honorable Christine Todd Whitman

*last revised 5.7.01*

Mr. OSE. Without objection, it will be included.

Thank you, Mr. Early.

Mr. Otter, for 5 minutes.

Mr. OTTER. Thank you very much, Mr. Chairman. Members of the panel, welcome, and I apologize for having to run in and out. But in the normal course of business, I find that's the way it is. You sort of do these things on the installment plan, and today is no exception.

Interesting, your comments, Mr. Early, that the EPA hasn't changed the rules. I would take exception to the idea that not having changed the rules doesn't change the environment for competition. Because as we know the rules that were established had a progressive effort to clean things up, had a progressive effort to make things better.

As we reached some of those plateaus of making things better, even though we didn't change the rules, substantial costs and investment in meeting some of the new standards that were established, that we didn't change the rules since 1990 have taken effect. And, the result of that obviously is that we've got less production. Less production means there is an increasing demand and it's going to create scarcity.

So, hasn't in fact the increasing standard that we put in place, starting in 1990, and we didn't want to create too much hardship, so we didn't want to do it overnight, and so it's actually taken about 11 years for our chickens to come home to roost here. Even though your statement, we didn't change the rules, in fact may be correct, but from where we started in 1990 to where we are in the year 2001, haven't the standard considerably changed?

Mr. EARLY. Well, let me respond in this way. First of all, the new source review program, if you're talking about the standards that apply to refinery expansions, for instance, first took place in 1977, and it was a pretty long time ago. All the changes that have been discussed in the industry, as was testified to by Mr. Cook, appear to be as a result of larger forces within the industry, and not environmental requirements that will apply.

Obviously, some refineries have a harder time meeting environmental requirements than others. But in terms of the consolidation of the industry, that has been a process that's affected by far larger forces. I think I'm getting at what you're asking, but I'm not certain.

Mr. OTTER. That sort of is where I'm going to. But I was involved in an industry, and I saw a lot of industry change between 1964 and 1993, or 1994, when I retired from the company. Quite frankly, the thing that would happen in the french fry business was for the EPA or OSHA or some other Government regulatory agency to come into our industry and say, you can't do this any more and you can't do that any more and you must change this and you must change that. Because we were large enough, and we had a large enough critical mass at the time that we could go ahead and make the changes. We could retrofit our plants. The little guy couldn't.

So, when we retrofitted, we were then obeying the law and they weren't obeying the law so, they had to go out of business. Somebody got their customers, and it was generally one of us.

When I started in that business, there was, I'm guessing now, but well over 20. I know it was over 20, could have been 40. Today there's about six. And most of the reason for that, make no mistake, it has nothing to do with the marketplace, other than the marketplace continued to grow. But what continued to grow even more dramatically was the Government constantly mucking about in that industry.

Rather than just setting the standard and holding people responsible, they continued to try to control the industry to their own peril. French fries then were selling for 8 cents a pound, today they're about 58 cents a pound, a la gasoline. So, I guess maybe they're catching up, but I don't see the pickets outside McDonald's and Jack in the Box yet. But maybe we will, I'm not exactly sure.

I think it's terribly naive to suggest that the constant drum beat of Government regulation and whether it started in 1990, certainly this drum beat started maybe even before that, but I think it's terribly naive to suggest that the constant infusion of Government regulation in the marketplace hasn't caused a constant increase. And I'd be willing to listen to your response to that.

Mr. EARLY. Well, I'm not really qualified to talk about all Government regulation. But again, going back to my initial remarks, Congress, at the urging of the American public, has been basically sending a message to the oil refining industry, we want you to deliver not only on gasoline and other fuels, but clean air as well. And there isn't any question that refiners who refuse to deliver on the clean air part of the requirement are going to be at a disadvantage and might have to go out of business.

But as a general matter, all the data would indicate that the forces that have really caused this consolidation of the industry don't have to do with the air quality regulations and have everything to do with natural economic forces that benefit large gasoline producers over small gasoline producers, as a result of a wide variety of factors. Dr. Coursey talked about that.

Mr. OTTER. But you don't think that it is a factor that one person can afford to comply relatively easily and the other can't?

Mr. OSE. If I may interject here, we're going to have a second round. Can you hold this line of thought?

Mr. OTTER. Yes, I will. But I would just conclude, Mr. Chairman, and say that whenever you're going to steal from Peter to pay Paul, you're always going to have Peter to support.

Mr. OSE. Mr. Tierney, for 5 minutes.

Mr. TIERNEY. Thank you.

I think we can show a pretty good record for the drum beat of Federal regulation for clean air standards, and that's a drum beat that most people like to hear. Contrast that with the constant whining of the industry for wanting Government to get out of their affairs, yet they've got their hand out for some \$15.6 billion of subsidies and tax credits and other things, and I think we'd take the drum beat any day over the whining.

With respect to the settlements on those cases, you've got 9 to 10 settlements, and you may want to comment on this, Mr. Early, but I think that from 22 years in litigation, if you're settling cases of that magnitude, you're pretty much admitting that you should

have complied, and now you're bellying up to the table and paying with respect to the new source.

Mr. EARLY. That's correct, and in the letter that I submitted for the record, it quotes from a portion of the brief submitted by the Bush administration Justice Department in litigation over the Tennessee Valley Authority, which acknowledges that the rules and the interpretation of the rules are the same today as they've been over more than 15 years. And these cases are meritorious cases, basically they're requiring those members of the industry to play by the rules and help deliver on clean air as well as product. And we think that we shouldn't be messing around with a program which actually has a record of success.

Mr. TIERNEY. My latest recollection of that is there have been 10 settlements. Is that accurate in terms of your recollection?

Mr. EARLY. I think that's my understanding, yes.

Mr. TIERNEY. I don't have a question for you, Mr. Slaughter, but I do have some information for you, just to correct. I know you don't want to leave the misimpression that the last administration had a fully completed application for waiver in 1999. In fact, that California application for waiver was finalized in February 2000. So after about 9 months of review, it then was recommended for approval, and now this administration has turned that around. Apparently there's going to be an effort to try and win it through some sort of political manipulation.

But I did, again, ask you, Mr. Early, this oil industry has experienced record profits and consumers are paying high prices. Between 1999 and 2000, profits from the top 10 petroleum refining companies on average doubled. Profits from Valero Energy Services increased by 437 percent in the same period, profits from Phillips Petroleum increased by 127 percent, and profits from Chevron increased by 110 percent. In addition, profits in the first quarter of 2001 averaged 81 percent higher than they were in the first quarter of 2000.

This is the same industry, as I mentioned earlier, that's going to get \$15.6 billion in corporate welfare in the form of special tax breaks over the next 5 years. You think that perhaps we ought to watch this industry, make sure they're doing their fair amount of protecting the public health? And I would suspect to make sure that they understand that if they had to incur some cost of the new source review or whatever, it is a fair price for doing business, and for making the enormous profits that they're making and for the subsidies that they're getting?

Mr. EARLY. The evidence would indicate that the new requirements that the industry is going to have to meet, and you saw Mr. Slaughter's chart, are affordable to the industry. They do make life a little more complicated for them, but you know, Exxon-Mobil made \$5 billion in the first quarter of 2001, I think they can get over it. They clearly can afford it. The important thing is that we need the oil industry, as we need other stationary sources, to contribute to the effort to get us to healthy air, just as they contribute to the economy through providing the American public valuable products.

And we think that the mix is not out of balance at this point, and would argue that weakening requirements for the industry are by no means in order.

Mr. TIERNEY. Mr. Chairman, I would just end my comments here by saying, these are business decisions on the part of these refineries, and not any sort of problems with regulations. In fact, I quoted in my opening remarks one of the vice president of Valero Energy in San Antonio making that point. Regulations are merely a nuisance rather than a barrier to meeting the demand. A bigger headache for the industry is the fierce competition that keeps the profit margins thin.

So I think the real issue here is, some of them decided to do boutiques because that narrows down their market, gives them a sort of a small monopoly and they can certainly capitalize on that, others, as we've seen in the Midwest, have curtailed production and withheld supply. The real issue here is, what do we do, other than give out more corporate welfare, what do we do with the policy issue to try to ensure that there's more refining capacity? That industry has made a decision on business premises that they don't want to increase refining capacity because they wouldn't make enough money for them. Not that they wouldn't make a profit, but they apparently wouldn't make enough of a profit.

So I would hope that the real question in this hearing is, what do we do to get industry, not only to comply with the reasonable environmental standards, that certainly wouldn't cut into their profits in any appreciable sense, but how do we get them to build more refining capacity when they tell us, we're making a profit, but it just isn't enough, so we're not going to.

Thank you.

Mr. OSE. As always, the gentleman is right on the button with his time, and I appreciate it.

Dr. Coursey, if I read your written testimony correctly, your essential point is that we need to move from a situation where we are today with a variety of different fuels to something more similar to a commodity market. I'm synthesizing or basically summarizing your point, but I believe it was that the simpler we make our fuel mix requirements, the more likely we are to have acceptable supply levels and price levels. Is that accurate?

Dr. COURSEY. Yes. I would agree with the remark earlier that consumers, based upon my 20 years of looking at them, are willing to pay 5 to 10 cents more per gallon, on average, to have these environmental benefits. There's a lot of evidence that I can prepare and submit if you'd like to see that.

But what that ignores is what I was referring to in my opening remarks. The other part that consumers are playing is less well noted, and that is that the spikes are part of the regulatory type of problem. When you put this very, very confused situation up here, that's going to cause small shocks to the system to be amplified, particularly in places like we've talked about, the upper Midwest and California.

Mr. OSE. I meant your points about the fungibility of production, that is, when a refinery goes off line in California, the consequence in, say, southeast Louisiana or whatever, for demand for substitute

fuel and how it ripples through the entire economy were very well made. I was most appreciative of that.

Dr. COURSEY. I think what's interesting about this map, and we've all seen these maps that exaggerate the size of States depending upon a particular variable—

Mr. OSE. But California remains the biggest and only State we're concerned about here, of course. [Laughter.]

Dr. COURSEY. I think another way of looking at this map up here would be to look at how far away from other competitive sources are these regions. If you do that, you're going to pull California way up the coast and make it an island with some home production capacity. We're going to pull Milwaukee, Chicago, northeast Indiana area off, put it up in Canada somewhere, and then ask, how can new sources get there under the current constraints of the system.

Mr. OSE. Mr. Slaughter, in your testimony, you talk about the denial of California's oxygenate waiver. We've heard a lot of discussion up here today about how legally narrow the waiver ability is, and whether or not California qualifies. I find it interesting sitting here thinking about it, you've probably got members in your association on both sides of that issue, so I think you're probably pretty well suited to answer this question.

Is the waiver narrow or does California qualify for a waiver?

Mr. SLAUGHTER. Well, let me answer the first question first. The waiver is narrow. It was designed to be narrow. When the Clean Air Act amendments of 1990 was passed, there was great concern about that 2 percent oxygenate requirement, because it was an intense political issue.

There was great interest in designing that portion of the act very narrowly. But as Mr. Waxman has stated, there are grounds for waiving it.

I don't know what more I can say about that. The grounds are narrow. It looked to me, I looked at EPA's decision, it looked to me to be a close decision. They said that some pollutants went up, some pollutants went down, they couldn't be quite sure about the overall effect, and so they decided not to grant the waiver.

One of the difficulties, I will say, that they raised, one of the reasons they gave for not waiving was, that there's a question of what the VOC impact of ethanol will be. If the waiver isn't granted and the MTBE phase-out stands, there will be considerable use of ethanol in California, with a lot of potential for increased VOCs.

It seems to me that this is kind of a circular matter, because there is evidence that if the current state of affairs in California stands, and ethanol is used, it basically will take a quarter of all the ethanol produced in the country to satisfy California's demand. I don't know how it's all going to get there. But there will be VOC impact from it. But that fact was not discussed.

But again, this is a matter that's been pending before EPA for a long time. The Administrator had authority to grant it now, or before the beginning of this year, and it was not done.

Mr. OSE. Let me just follow up on that. I'm a little bit confused on that. Apparently the application from California was received in the spring of 2000 for a waiver. I don't know how you act on something that is not complete. Was it complete? Was it incomplete? I don't quite understand.

Mr. Slaughter, we're going to come back to my question, but my time's expired. Mr. Otter, for 5 minutes.

Mr. OTTER. Thank you very much, Mr. Chairman. I have just a couple that I'd like to follow up on. One of them is the waiver, because much has been made about it, because some people feel like we're just picking on them, we're just picking on California. And I say that with all due respect to my good friend, the chairman.

Has anybody else, in your recollection, I couldn't get it out of the last panel, did Chicago ever ask for a waiver and they not get it?

Mr. SLAUGHTER. Well, there are different kinds of waivers, Mr. Otter. In the Midwestern situation last year, for instance, several people asked for waivers of the RFG program, because of the supply problems in the Midwest. They were not granted in the case, for instance, of Chicago and Milwaukee, but they were granted in the case of St. Louis.

Mr. OTTER. Mr. Gephardt's territory. I'm not suggesting anything.

Mr. SLAUGHTER. It was granted in the case of St. Louis. It was not exactly the same type of waiver, but it was a waiver that required serious consideration. Some were granted, some were not.

Mr. OSE. Would the gentleman yield?

Mr. OTTER. Yes, I'll yield.

Mr. OSE. You're saying there was a waiver granted in St. Louis on reformulated gasoline type II by the Clinton administration?

Mr. SLAUGHTER. That's correct.

Mr. EARLY. If I might shed some light on that—

Mr. OSE. Mr. Slaughter is speaking, Mr. Early. I appreciate the variance in the waivers. I'm just kind of curious, we had some rather serious allegations earlier for which there was no evidence, I don't think you're making any—

Mr. OTTER. No.

Mr. LIEBERMAN. It might be worth adding that on a related matter, some of the States and counties that have opted into the RFG program are now attempting to opt out. So they would like to accomplish what California is also trying to accomplish, and perhaps that's the reason to maybe amend the Clean Air Act, to allow that opt-out of the 2 percent oxygenate requirement for any State or locality that wants to continue with the RFG program, but not with that RFG 2 percent requirement.

Mr. EARLY. Amazingly enough, the American Lung Association agrees with Mr. Lieberman on this question.

But just to correct the record, or to clarify the record, St. Louis is a non-mandatory RFG area. They opted into the program. There is a provision in the Clean Air Act which specifically allows opt-in areas as opposed to mandatory areas, to ask for a waiver. It was on that basis that St. Louis obtained a waiver last summer. California is a mandatory area, and the statutory provisions are different for mandatory areas.

Mr. OTTER. Mr. Slaughter.

Mr. SLAUGHTER. Mr. Otter, I understand that EPA wrote the California Environmental Protection Agency in February 2000, that its application was complete. And that letter said that EPA would issue a decision on the waiver request in summer 2000.

Mr. OTTER. Could I get a copy of that letter? Do you have a copy of that letter?

Mr. SLAUGHTER. I will see if we can supply one to you, sir.

Mr. OTTER. Mr. Chairman, I would like to make sure that the committee gets a copy of that letter forwarded to it, and also that it become part of this committee process.

Mr. OSE. Without objection.

[The information referred to follows:]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

FEB 14 2000

OFFICE OF  
AIR AND RADIATION

Honorable Winston H. Hickox  
Secretary  
California Environmental Protection Agency  
2020 L Street  
P.O. Box 2815  
Sacramento, CA 95812

Dear Mr. Hickox:

I am writing to confirm receipt on February 9, 2000, of California's completed application for a waiver from the reformulated gasoline (RFG) program's oxygen requirement in the Clean Air Act. As you are aware, on January 24 and 25, 2000, Environmental Protection Agency (EPA) staff met with California Air Resources Board (CARB) staff to explore technical questions and issues concerning California's request for the waiver. Based on those discussions, CARB recently provided the additional information requested by EPA to complete its application.

As you know, under the Clean Air Act provisions, EPA may waive the oxygen mandate, in whole or in part, "...upon a determination by the Administrator that compliance with such requirement would prevent or interfere with the attainment by the area of a national primary ambient air quality standard [NAAQS]."

In order to make this determination, the Agency must conduct an independent evaluation of the data and modeling as well as the other information submitted by the state in support of its request for a waiver from the federal RFG oxygen requirement. We hope to complete our assessment by early summer. Based on our productive discussions with CARB up to this point, we fully expect that we will meet this schedule. If EPA determines that the statutory conditions to grant the waiver are met, we will then be required to provide public notice of our decision. Such procedures include a comment period of at minimum thirty days.

EPA understands California's desire for an expeditious resolution of this matter. To facilitate this process, we have been in close contact with CARB technical staff and we appreciate the cooperation we have received from CARB to date. We look forward to maintaining this cooperative relationship as we exchange information necessary to complete our evaluation.

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We appreciate your willingness to continue working closely with us on this matter, and will keep you apprised of our progress.

Sincerely,

A handwritten signature in black ink that reads "Bob Perciascpe". The signature is written in a cursive, slightly slanted style.

Robert Perciascpe  
Assistant Administrator

cc: Michael Kenny, Executive Officer, CARB

Mr. OTTER. Mr. Slaughter, I would be interested in the industry's response to the earlier testimony, and I think you were here during the earlier testimony, about the EPA's estimate of what it would cost in order to retrofit the petroleum, or the refining industry, it was like \$2 billion is what it would cost. I'm always a little nervous when I have a Government agency that estimates the cost for an industry. Would you agree to that \$2 billion?

Mr. SLAUGHTER. Mr. Otter, I believe the figure was \$2 billion per year. We believe the cost of the diesel fuel regulation to be \$8 billion over a 4-year period, so it seems relatively close. That's on top of the \$8 billion that the gasoline sulfur reduction will cost the industry in the same period of time.

I think one of the factors is that the refinery industry earnings are cyclical. Over the long period of time, the earnings on investment and refining, as opposed to the rest of the business, have averaged 4 to 5 percent. You can make 4 to 5 percent by putting your money in a Treasury note with no risk. Obviously, refining is a difficult investment.

Right now, refining is doing better than that. We may well be at the top of the cycle. There has been reference today to a number of incentives and tax breaks that the industry receives. I'm not aware of any of them that the refining industry receives. There may be other portions of the energy industry that do receive them.

But essentially, refiners operate in a free market environment. One of the problems, sir, is that people want to basically maintain that these environmental initiatives have no cost, that they're free. When regulations are finalized, EPA press releases are coming out basically saying that it's the most significant event since the stone tablets came down from Sinai. But if you suggest that they have any impact on operating costs, or on the concentration within the industry, it's as if that's something that can't even be considered.

I don't know what their impact is. But obviously something that significant that reduces pollution as much as they say is going to have an impact on cost. For some reason, people want to ignore that fact. And I really don't understand why.

Mr. OTTER. Thank you. Thank you, Mr. Chairman.

Mr. OSE. Mr. Tierney, for 5 minutes.

Mr. TIERNEY. Mr. Slaughter, some of those companies that are into refining, are they also into other products or aspects of the energy business?

Mr. SLAUGHTER. There are integrated companies, Mr. Tierney, then there are independent ones, smaller regional ones. It's a diverse industry, but there are fewer participants than there used to be.

Mr. TIERNEY. How about Valero? Is that somebody that has refining as well as other aspects?

Mr. SLAUGHTER. No, Valero is an independent refiner with no production.

Mr. TIERNEY. Sunoco?

Mr. SLAUGHTER. Sunoco has no production.

Mr. TIERNEY. Can you give me the names of some, Chevron?

Mr. SLAUGHTER. Chevron has production, Exxon-Mobil has production, BP, Citgo.

Mr. TIERNEY. Phillips Petroleum?

Mr. SLAUGHTER. Phillips, yes, has production. It's integrated.

Mr. TIERNEY. So they're making 120 percent profits, and 5 percent profits at the refining end, probably appreciably more profits in other aspects of their business.

Mr. SLAUGHTER. But they may not channel those profits back into the refining business, Mr. Tierney. They may put it in other pursuits, and—

Mr. TIERNEY. No. But that's their decision, right?

Mr. SLAUGHTER. That's their decision. But we ought to try to make the refining industry attractive to investment, because it's important to the country.

Mr. TIERNEY. Who's we on that?

Mr. SLAUGHTER. All of us. I think that should be public policy, to encourage investment in a key industry.

Mr. TIERNEY. Why won't the market do that? You guys are big market fans. Why won't the market take care of that?

Mr. SLAUGHTER. Well, part of "the market" is basically the investment requirement on the industry, which is a function of what you're asking it to do environmentally. And the industry is never saying that we shouldn't make environmental improvements, we're saying that some of them can be done more efficiently. We're suggesting that people look at that. Do you think the current situation can't be improved?

Mr. TIERNEY. Well, Mr. Early, let me get back to you, because I want to knock this out once and for all. Let's make it clear here, have you ever seen any evidence at all, any evidence at all, that the decisions of whether or not to increase refining capacity were based on environmental regulations as opposed to business decisions?

Mr. EARLY. To my knowledge, I've seen no evidence of that nature.

Mr. TIERNEY. Have you got any, Mr. Slaughter, that you want to put on the record here? Hard evidence, not conjecture or broad conclusionary statements, but just hard evidence to that effect?

Mr. SLAUGHTER. Well, there's plenty of evidence, I'd be glad to supply it for the record. Refining investment has not gone forward in many instances because of the return on the investment.

Mr. TIERNEY. What's the nature of the evidence that you—return on the investment or the regulations?

Mr. SLAUGHTER. What was the nature of Mr. Early's evidence that there wasn't any impact?

Mr. TIERNEY. He either has some or he doesn't. I'm asking you, do you have some hard evidence? Are you going to produce for us hard evidence of the places that decided they weren't going to build refining capacity because of environmental regulations, as opposed to because they just didn't think they were getting enough of a profit margin generally?

Mr. SLAUGHTER. First of all, the investment requirement for environmental expenditures is part of the investment climate, and the return on investment, refiners will tell you that has been a factor in their decision to build or not build refining capacity, particularly in the United States. I'd be glad to supply some of that information for you.

Mr. TIERNEY. Let me just say what was mentioned again in one of the earlier statements, there was a person who said it wasn't a factor. They said it was a minor nuisance, and that's what they say.

Mr. SLAUGHTER. He was speaking for one——

Mr. TIERNEY. U.S. independent refiners say they are on pace to exceed last year's record profits, robust margins, and they go on to say that basically it's a nuisance, not a reason for why they're going to build or not build. The fact of the matter is, you've got part of the industry, it's not the refining part of the industry, it's other parts of it, that get \$15.6 billion. I guess you're saying that you hand it out again, and you're saying, well, in order to get more refineries, you've got to ante up on that, too. Is that how we make it attractive?

Mr. SLAUGHTER. We're simply suggesting that environmental requirements can be done more cost effectively than they have been, and that some of them are impediments going back over more than a decade and ought to be reconsidered.

Mr. LIEBERMAN. One thing that I might add to the record, the National Petroleum Council and Advisory Committee——

Mr. OSE. Mr. Lieberman, I'm sorry, it's Mr. Tierney's time.

Mr. TIERNEY. I wasn't asking you a question, sir, but I do have a question for you. Can you tell me which energy companies contribute to your organization?

Mr. LIEBERMAN. We get funding from, I believe, the American Petroleum Institute and some——

Mr. TIERNEY. Mr. Slaughter's group?

Mr. LIEBERMAN. No.

Mr. TIERNEY. Oh, he doesn't give you any. American Petroleum Institute and what?

Mr. LIEBERMAN. And some large companies. I don't know the exact ones. I believe we get money from Texaco.

Mr. TIERNEY. Will you submit that for the record, the names of the energy companies that fund your organization and the extent to which they do that?

Mr. LIEBERMAN. OK.

[The information referred to follows:]



COMPETITIVE ENTERPRISE INSTITUTE

June 15, 2001

The Honorable Doug Ose  
Chairman, Subcommittee on Energy Policy,  
Natural Resources and Regulatory Affairs  
House Committee on Government Reform  
B-377 Rayburn Building  
Washington, DC 20515

Dear Chairman Ose:

During the course of the June 14, 2001 hearing on gasoline prices, I was requested to provide information to the subcommittee regarding the Competitive Enterprise Institute's (CEI) sources of funding. This letter is in response to that request.

CEI is a non-partisan research and education organization, operating under Section 501(c)(3) of the Internal Revenue Code. Contributions are tax-deductible. CEI does not accept government grants or contracts, nor do we have an endowment. We raise our funds each year solely from private sources: one-third from individuals, one-third from foundations, and one-third from corporations. Honoring the philanthropic and eleemosynary intent of the donors, CEI keeps all contributions anonymous unless publicity is specifically requested from a donor.

I would also like to point out that CEI is a free-market advocacy organization, and we have consistently taken that position since our founding in 1984. This has meant that, on a number of occasions, our stance on specific issues has been in opposition to that of some of our supporters.

Sincerely,

Ben Lieberman  
Senior Policy Analyst  
Competitive Enterprise Institute

Mr. TIERNEY. I yield back.

Mr. OSE. Thank you, Mr. Tierney.

We've just been called for votes, we've got a 15 minute vote and a 5 minute vote. We're going to go ahead and wrap.

I have a couple of questions, if I might, I'll use my time accordingly. First of all, I want to thank Mr. Tierney for being here, Mr. Waxman and the others, as well as the members on my side. I want to go to the electricity issue in California. Mr. Slaughter, this is probably going to be a discussion you and I are going to have.

It seems to me that if we, or if the State sets up a regulatory scheme for allocation of electricity that puts refineries at the back of the line, we're in effect substituting or actually manufacturing a gasoline shortage. Because, if I understand the industry practices, it takes from a week to 2 weeks once a line loses power to bring it back up. The consequence of that would be lost supply, resulting in significantly higher prices. Is that an accurate analysis?

Mr. SLAUGHTER. Yes, it is, Mr. Chairman. It's just not as simple as turning a switch on or off to start a refinery back. For instance, Mr. Cook mentioned the maintenance and repair cycle, and the problem that some refineries have in coming back from that in the spring season. You basically have to shut parts of your units or all of your units and then restart them again. It's not as easy as flicking a switch.

So, there would be lost production and increased costs to your constituents.

Mr. OSE. I continue to be focused on that, I have since early spring. You referenced this letter we sent, that Mr. Burton and Mr. Horn and I sent to the PUC, which by the way, we followed up with a letter on June 11th, excuse me, we sent a May 3rd letter to Governor Davis regarding this particular concern of ours, and we followed up with a June 11th letter to the person who runs the PUC in California. We're going to enter these into the record.

[The information referred to follows:]

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May 3, 2001

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BERNARD SANDERS, VERMONT,  
INDEPENDENT

The Honorable Gray Davis  
Governor  
Office of the Governor  
State Capitol Building  
Sacramento, CA 95814

Dear Governor Davis:

This letter is in response to the California Public Utility Commission's (CPUC) plans to implement its Optional Binding Mandatory Curtailment Program (OBMCP - Final Decision 01-04-006), which would disrupt electricity to many large industries in California during Stage 3 emergencies. As has been widely reported, several significant oil and gas refineries have been included in this program. Cutting electricity from refineries will add to the energy crisis in California by endangering the supply of gasoline and driving gasoline prices even higher. We urge you to reconsider this decision.

As you may be aware, the nation's oil and gas infrastructure has suffered through many of the same constraints as the electricity infrastructure. Because of stringent and expensive environmental regulations, refinery capacity has failed to keep pace with the demand for gasoline and other petroleum products. As a result, refineries are operating at peak capacity nearly year-round to meet demand. California maintains only a three and a half day supply of gasoline. A single disruption could cause severe market disruptions, as evidenced by the price spikes in Chicago and Milwaukee last summer. The effects of repeated disruptions in the operations of California oil refineries could have serious repercussions in California and throughout the Western United States.

Compounding this problem, the CPUC and the California Environmental Protection Agency prohibit many businesses from using their backup power generators unless a blackout is imminent. It is reportedly logistically impossible to notify businesses that a blackout is imminent in time for them to start backup generators to prevent an interruption in electricity. Even temporary interruptions to refineries can be devastating. As the California Energy Commission stated in their April 25<sup>th</sup> recommendations to the CPUC:

Governor Davis  
May 2, 2001  
Page 2

"a curtailment of electricity to a refinery lasting only a minute can result in the total shutdown of the refinery...."

Such temporary interruptions for oil refineries could dramatically curtail gasoline production, which would hurt the California economy and consumers even more than they are being adversely affected today.

We strongly encourage you and the CPUC to take immediate steps to exclude refineries from electricity curtailment and reclassify them as "essential use" customers. By taking such actions now, California can hopefully avert a third major energy crisis.

Thank you for your consideration of this request.

Sincerely,



Dan Burton  
Chairman  
Government Reform Committee



Doug Ose  
Chairman  
Subcommittee on Energy Policy,  
Natural Resources and Regulatory Affairs



Stephen Horn  
Chairman  
Subcommittee on Government  
Efficiency, Financial Management,  
and Intergovernmental Relations

cc: The Honorable Henry Waxman  
The Honorable John Tierney  
The Honorable Loretta Lynch

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June 11, 2001

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BERNARD SANDERS, VERMONT,  
INDEPENDENT

President Loretta Lynch  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, California 94102

Dear Ms. Lynch,

As the California Public Utilities Commission continues consideration of waiver applications to the Optional Binding Mandatory Curtailment Program, we, again, strongly urge you to reconsider your previous decision and immediately exclude refineries from being subject to rolling blackouts. We are pleased that Governor Davis has joined us in this critical request to classify refineries as essential use customers and exempt them from power disruption during Stage 3 emergencies.

As we stated in our previous letter dated May 3, 2001, such temporary interruptions for oil refineries can dramatically curtail gasoline and jet fuel production, resulting in severe consequences to consumers and the state's economy. It has been reported that an outage at even one of California's 12 major refineries will have an instant impact on prices. With refineries needing hours to prepare for a shut-down and requiring days to restart, subjecting them to rolling blackouts would prove grossly irresponsible, exacerbating already high gasoline prices. In many areas across the state, gasoline prices have surpassed \$2.00 per gallon. With projections that we may see even higher costs, we must do all we can to protect working families from unnecessary and avoidable price increases.

We recognize the commission's burden of processing all waiver applications and understand that the commission will make decisions on waiver requests throughout the summer. However, given the critical importance of refineries, we were shocked to learn that the commission is making no distinction between consideration of refineries and other applicants. Should refineries have to wait until August 2 for a final decision, the threat of blackouts to over 25 percent of the state's capacity could prove irreparable to California's economy.

In making every effort to avert a third major energy crisis, we again urge you to immediately classify refineries as essential use customers.

Sincerely,



STEPHEN HORN  
Subcommittee on Government Efficiency, Financial  
Management, and Intergovernmental Affairs



DOUG OSE  
Subcommittee on Energy Policy, Natural  
Resources, and Regulatory Affairs

cc: Governor Gray Davis

Mr. OSE. The consequence of shutting electricity off at the refineries in effect means that people aren't going to be able to fill their tanks in their cars. Since they can't put fuel in their cars, they won't be able to get to work or to school or the grocery store. The price of fuel is likely to rise, did Mr. Cook estimate 30 to 60 cents per gallon. And the net result of which is a terrible disruption to the sixth largest economy in the world.

This isn't about Mr. Slaughter and his clients. This isn't about air quality. This is about making California work and giving us the tools to do so. I would just hate to see the California PUC compound its problems by frankly, making a foolish decision that takes away the ability of our people to utilize natural resources to facilitate their work.

That doesn't call for a comment from you. Refineries may benefit, the fact of the matter is, I'm trying to get consumers gasoline at the lowest possible price and an adequate supply.

I want to summarize a couple of thoughts here, then I want to ask each of you to be brief, give you each a minute. One of the things I always try and focus on is, what have we learned today. What we have learned today is that in the next few years, we're going to spend \$10 billion a year to keep refineries in compliance or in anticipation of new air quality requirements.

We've learned that rolling blackouts in California, if refineries are not protected from denial of power, may cause an increase in the cost per gallon of fuel of 30 to 60 cents. We've learned that the Bush administration has followed the law written by Mr. Waxman in making the unfortunate decision to deny California's longstanding request for a waiver from the oxygenate requirement.

We've learned that for the Bush administration to grant the waiver will require statutory changes that can only be put forward by Congress. And we've learned that—this is Dr. Coursey's comment—we've learned that to the extent we can narrow the numbers or types of fuels that we have in the marketplace, we can give refiners the opportunity to better align production with demand, and likely to end up with lower prices to the consumers.

The essential question I have is, is there a process impediment that prevents us from saying, you have a safe harbor here on all of your air quality requirements, as long as you use one of these two or three fuels across the country? Is there a process impediment to us saying that from an outcome based procedure, not a process procedure, but from an outcome based procedure? If you produce fuel that meets this requirement, you are in compliance with the Clean Air Act? That's my basic question.

Frankly, we've focused on the process in writing the law. I want to focus on the outcome. Can we give industry the freedom to help us get adequate supplies of fuel at affordable prices for our consumers?

Dr. Coursey.

Dr. COURSEY. I'd like to make my summary remarks around the notion of profit, which has also taken a beating a lot today. Clearly, you want to identify the choke points, and clearly one of them, I elaborated on others in my written testimony, but one of them is the refining process.

As an economist, I know that if this situation keeps up in the long run, somewhere or another, the forces of competition are going to move in to solve it. I think two basic scenarios you have right now to choose over are A, let's revisit the way we're regulating American refineries, see if there's a compromise that can be made, and see if the things that were done 10 years ago still hold water today. Let them expand, especially as everybody's talked about, when they're in a rare period where profits are high. And, I emphasize the fact that this is a rare event.

The other option, I think, is that other people will take care of it for us, Europeans, South Americans, particularly the Venezuelans and Mexicans. And that's, I think, one of the broad brush things that you're going to have to confront. Which of those two scenarios do you want to see occur in the long run?

Mr. OSE. Thank you, Dr. Coursey.

Mr. Slaughter, briefly.

Mr. SLAUGHTER. Conceivably no, there's no impediment. But, probably you would have difficulties with the NSR, new source review, program. People who have come up with suggestions for streamlining, bubble concepts, things that you're suggesting, we think that people who are making cleaner fuel ought to at least be given expedited permitting, and shouldn't be subject to the labyrinth of the new source review system in every instance.

But that's not today's case. So changes would have to be made, at least in the new source review program. One of the things I have to tell you is that the refining industry is concerned about convergence on one or two very expensive, difficult to make fuels. For instance, we can't afford to make CARB 3 throughout the country as the national fuel, you will decimate the American refining industry if you do it. It's expensive to make. So please keep that in mind.

Mr. OSE. Thank you. Mr. Lieberman, we're going to save you for last.

Mr. Early.

Mr. EARLY. It's certainly possible to come up with a consensus on reducing the number of fuels. But the main message that the American Lung Association is trying to send today is that those fuels have to contribute to clean air rather than being neutral or detracting from clean air. In my testimony, I have a map showing all the areas that have high levels of air pollution that could benefit from a uniform clean fuel, and would obviously be adversely impacted from a uniform, dirty fuel. Our concern is that as we have these discussions, we end up with the wrong fuel.

Mr. OSE. Mr. Lieberman.

Mr. LIEBERMAN. Just one obvious thing, just because gasoline gets more expensive, because of regulations, that doesn't automatically make it better for the environment. We see a number of these fuel specifications, and a large number of fuel specifications adding to the cost burden in a way that really doesn't provide additional environmental improvements.

There are some things that can be done at the Federal level, just within the reformulated gasoline program alone. Right now RFG costs 21 cents a gallon more than conventional, the 4 to 8 cents that the EPA representative mentioned, that's just the estimated

cost. But people pay at the pumps right now 21 cents a gallon more.

A lot of the problems that have been associated with reformulated gasoline, especially the new tougher reformulated gasoline standards that took effect starting last year, things like maybe easing the transition from the winter to the summer blend, which is I think a factor in why we see price spikes this time of year. There is some tinkering at the administrative level that can be done, and I would also urge the Congress to take a look at the Clean Air Act.

If even Henry Waxman can say that there are problems with the 1990 amendments, the Clean Air Act, then there may be some problems worth looking at and some revisions to be made.

Mr. OSE. I want to thank the witnesses for their participation today. I do want to just reiterate that I am terribly concerned about the denial of electricity to refineries in California and the consequences that clearly leads to in terms of consumers paying exorbitantly high prices. I think the State government needs to move expeditiously to grant their request that puts these refineries in a position where they can produce.

Gentlemen, I do appreciate your joining us today, as well as the previous panel. We will take your comments and advice into consideration.

We're going to leave the record open for 10 days for additional questions. If we send them to you, we hope you will be able to respond. Again, thank you.

We're adjourned.

[Whereupon, at 1:22 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

[The prepared statement of Hon. Edolphus Towns and additional information submitted for the hearing record follow:]

**Statement of Congressman Edolphus "Ed" Towns (D-Brooklyn)  
 Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs  
 "Gasoline Supply--Another Energy Crisis"  
 June 14, 2001**

Mr. Chairman, thank you for holding this important hearing today on gasoline supply in this country. I am thankful that we are not here to discuss this issue with Americans lined up at gas pumps all over the country competing for what seemed like an ever-dwindling supply. I remember those days of gas siphoning and tank locks; I will work to ensure that we do not see those conditions again. That was a supply problem.

Today, the problem is quite different. There are no lines, our gas tanks are safe, but over the past several months the prices of gasoline have skyrocketed. In my district in Brooklyn, New York we have been experiencing significant price spikes over the past year. According to the New York City Department of Consumer Affairs the average price for gasoline in Brooklyn increased by \$0.17 from April to May of this year. In May 2000 the average price of gasoline in New York City was \$1.65 per gallon, while in May 2001 the price had increased by 13% to \$1.86 per gallon. This increase is made even more dramatic by the fact that the average price for gas in New York City increased by an alarming 11% from April 2001 to May 2001. In other parts of this country the price increases have been even more severe. What is behind these leaps in prices? Are price spikes a result of supply shortages? Or is there another explanation for these apparent short term increases. And is this a nation-wide problem that can be addressed?

I come to this hearing with a bias. I believe that a true supply problem would result in sustained price increases well beyond the levels that we have recently seen. While I agree that gasoline prices are currently too high, I also am encouraged to see that they have begun to drop and are expected to drop significantly by the fall. What can the average consumer expect to pay for gasoline across the country during the peak travel season of the year? The Energy Information Administration (EIA) projects that the average cost at the pump will drop to \$1.55 per gallon by September 2001. Will this translate into a steady decline in prices throughout the summer or will the price spikes continue?

During the presidential campaign, promises were made that seemed to assure that OPEC would "open its spigots" – what happened? At the latest OPEC meeting, the oil ministers announced that they would not increase production. In addition, the government of Mexico has announced that they will support OPEC and cut their production. Through the lobbying efforts of President Clinton and Energy Secretary Richardson, OPEC and non-OPEC foreign producers, increased their production of crude oil by 3.5 million barrels per day. We have yet to see a similar effort from the current Administration.

While the National Energy Plan commissioned by this Administration calls for increased domestic supply, conservation efforts as well as alternative fuel sources have received significant cuts in funding. Even if all of the Administration's NEP recommendations were followed the domestic supply initiatives are years away from market. The only responsible course of action as far as gasoline is concerned is for a comprehensive energy policy that includes working with OPEC to increase their production while fully funding conservation and alternative fuel programs. Last year, the Government Reform Committee examined the issue of potential gasoline price gouging. From the testimony that we heard as well as a recent report by the Federal Trade Commission it is clear that at least one company substantially increased its production of reformulated gasoline and then, despite its excess supplies, withheld supplies in

order to help keep gasoline prices high. Refineries are on pace to receive record profits again this year. What is going on with our refineries ? Why are they under producing ? What can we do to get them to increase their inventories and allow their supplies to get to market in a timely fashion ? There has not been a new refinery built in this country in over 25 years, while at the same time the industry has experienced a great deal of consolidation - what can be done to address this refining shortfall and create a more competitive marketplace?

Additionally, what does the future hold for states such as New York, California, and Connecticut that have committed to phasing out methyl tertiary butyl ether (MTBE) yet do not currently have access to ethanol? Will they be able to continue to use reformulated gasoline? Are we ready for that transition?

These are all questions that I look forward to the witnesses addressing in greater detail. However, our current high gasoline prices cannot be completely blamed on a supply problem, but rather we must work to achieve the greatest production possible from OPEC and non-OPEC producers, increase conservation as well as alternative fuel capacity. In addition, we must work with our refineries to ensure a competitive marketplace that does not take advantage of consumers, while maintaining our environmental standards.



Federal Trade Commission  
600 Pennsylvania Avenue, NW  
Washington, DC 20580

For Release: March 30, 2001

Related Documents:

Final Report of the Federal  
Trade Commission:  
*Midwest Gasoline Price  
Investigation* (March 29,  
2001)

[Text of Report](#)

[Figures 1-11](#)

[Statement of  
Commissioner Swindie](#)

[Statement of  
Commissioner Leary](#)

## FTC Issues Report on Midwest Gasoline Price Investigation

### *Agency Finds No Evidence of Collusion; Identifies Several Factors Which Contributed To Gasoline Price Spikes in the Midwest During Spring and Summer of 2000*

After a nine-month investigation into the causes of the gasoline price spikes in local markets in the Midwest during the spring and summer of 2000, the Federal Trade Commission today announced its findings into the causes behind such price increases. While the Commission found no credible evidence of collusion or other anticompetitive conduct by the oil industry, the investigation found that a combination of many factors was likely responsible for the price spike. These factors included circumstances beyond the control of the industry as well as those within their control - "conscious, (but independent) choices by industry participants" to engage in profit-maximizing strategies.

"There were many causes for the extraordinary price spike in Midwest markets last summer," stated Chairman Robert Pitofsky. "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. There were, however, some strategic choices by some oil companies designed to maximize profits that contributed to the temporary price increases. Once the magnitude of the price increases became apparent, several oil companies moved aggressively to bring supply into the Midwest market, and the price spike was eliminated." Pitofsky added that "while there were many short-term causes of the increases, the underlying lack of U.S. refinery capacity threatens similar price spikes in the future in the Midwest and elsewhere."

### *The Investigation*

While gasoline prices increased nationwide in the spring and early summer of 2000, increases in some local markets, particularly in the Midwest, eclipsed those experienced in past years and were far greater than those experienced in other U.S. markets. Consumers in Chicago and Milwaukee saw significant price spikes at the retail level for reformulated gasoline ("RFG") required under the Clean Air Act, and consumers throughout the Midwest saw significant

price increases for conventional gasoline. The price runup was intense, and peaked during the week of June 18-24. In response to requests for an investigation by a bipartisan group of Senators and Representatives, the Commission began the investigation on June 20, 2000.

The investigation examined many potential causes for the price increases, including possible antitrust violations. During June and July, the Commission issued subpoenas for testimony and Civil Investigative Demands for compilations of data and answers to written questions to 13 refiners and 10 entities that own or control pipelines serving the Midwest markets. Staff received nearly 1000 boxes of documents and 100 compact disks containing data in response to these formal requests.

After reviewing and analyzing the documents and information provided in response to these requests, staff conducted investigational hearings of key employees from eight of the oil companies serving the Midwest gasoline markets. Staff also interviewed experts knowledgeable about the factors that may have contributed to the price spikes, industry structure, and the regulatory environment. In addition, staff visited a refinery, retained two outside economists, and reviewed the voluminous published materials analyzing the industry as well as the price and supply issues relating to Summer 2000. Staff also met with representatives of the Environmental Protection Agency and the Department of Energy.

#### *Findings*

The report states that the spike "appears to have been caused by a mixture of structural and operating decisions made previously (high capacity utilization, low inventory levels, the choice of ethanol as an oxygenate), unexpected occurrences (pipeline breaks, production difficulties), errors by refiners in forecasting industry supply (misestimating supply, slow reactions), and decisions by some firms to maximize their profits (curtailing production, keeping available supply off the market)."

The report finds "the damage was ultimately limited by the ability of the industry to respond to the price spike within three or four weeks with increased supply of products." But the Commission warns that "[u]nless gasoline demand abates or refining capacity grows, price spikes are likely to occur in the future in the Midwest and other areas of the country."

Primary factors for the increase included refinery production problems; pipeline disruptions and low inventories. Secondary factors included the unavailability of reformulated gasoline using MTBE as an oxygenate ("RFM") as a substitute for reformulated

gasoline using

ethanol as an oxygenate ("RFE") in Chicago and Milwaukee; the assertion by one refiner of certain patents relating to the production of RFG, multiple waivers of the RFG requirements that allowed the continued use of conventional gasoline in St. Louis, which increased the incentive to supply conventional gasoline to St. Louis and may have increased expectations of waivers in Chicago and Milwaukee; high crude oil prices which contributed to low inventory levels; increased demand for gasoline in the Midwest; and local gasoline sales taxes.

The report states that "[a]lthough the principal causes of the price spike were largely beyond the immediate control of industry participants, the industry as a whole made errors in supply forecasts and underestimated the potential for supply shortages in the Midwest in the spring and early summer 2000."

According to the report, "[o]nce prices spiked, several firms acted quickly to increase production and to ship additional gasoline into the Midwest, thus moderating the severity of the price spike. Several other firms, however, delayed shipments of additional products into the Midwest in the expectation that prices would soon abate."

The report states that "[a] significant part of the reduction in the supply of RFG was caused by the investment decisions of three firms." The report explains that "[w]hen determining how they would comply with the stricter EPA regulations for summer-grade RFG that took effect in the spring 2000 . . . each independently concluded it was most profitable to limit capital expenditures to upgrade their refineries only to the extent necessary to supply their branded gas stations and contractual obligations." The report added, "[c]onsequently, these three firms . . . could not produce summer-grade RFG to sell on the spot market as they had done in prior years."

The report discusses one company which "increased its summer-grade RFG production substantially and, as a result, had excess supplies of RFG available and had additional capacity to produce even more RFG at the time of the price spike. It thus found itself with considerable market power in the short term. This firm did sell off some inventoried RFG, but acknowledged that it limited the magnitude of its response because it recognized that increasing supply to the market would push down prices and thereby reduce the profitability of its overall RFG sales."

The report was approved by a Commission vote of 5-0, with Commissioner Orson Swindle issuing a separate statement.

Commissioner Swindle stated that while he "voted to approve the

Commission's Final Report on the Midwest Gasoline Price Investigation so that it might, after some delay, finally be submitted to Congress," he also expressed a "grave concern, not with the method of investigation or the factual findings of the Final Report, but rather with the way these findings are being characterized." He observed that the Report found that prices rose "because of factors beyond the industry's immediate control," perhaps the most important of which was "a change, mandated by the Environmental Protection Agency (EPA), from one formulation of gasoline (RFG I) to another formulation (RFG II) that caused unforeseen production difficulties." Commissioner Swindle also stated that "it is unfair to try to assign blame to industry participants -- directly or through insinuation -- for undertaking varying responses to these market factors," and that the "crucial point that may get lost in applying 20/20 hindsight to the firms' actions is that the industry acted quickly in response to the price spike, which was intense but relatively short-lived because of the effective workings of the market." He emphasized that the "bottom line is that the problems in the Midwest were caused not by antitrust violations -- of which there is no evidence -- but by a combination of the EPA requirement and unforeseen market circumstances. Ultimately, the market worked to correct the situation. These conclusions, and not certain between-the-lines insinuations, should be the overarching message of the Final Report."

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Copies of the report and Commissioner Swindle's statement 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; toll-free: 877-FTC-HELP (877-382-4357); TDD for the hearing impaired 202-326-2502. To find out the latest news as it is announced, call the FTC NewsPhone recording at 202-326-2710.

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(FTC Matter No. 001-0174)

(<http://www.ftc.gov/opa/2001/03/midwest.htm>)

Final Report of the Federal Trade Commission  
**Midwest Gasoline Price Investigation**

March 29, 2001

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##### EXECUTIVE SUMMARY

In the spring of 2000, retail gasoline prices in parts of the Midwest spiked sharply higher. Beginning in May and peaking in mid-June, the national average retail price of reformulated gasoline ("RFG"), required by Environmental Protection Agency regulations in certain urban areas, reached a high of \$1.67 per gallon. The price increase in the Midwest, however, was significantly higher. The price of RFG reached \$2.13 a gallon in Chicago, and \$2.02 a gallon in Milwaukee. The price of conventional gasoline showed similar sharp movements in these and other areas in the Midwest. The price run up was intense, but brief; by mid-July prices had receded to pre-spike levels or even lower.

The large price run-up in the Midwest prompted a bipartisan group from Congress to request that the Federal Trade Commission open an investigation to determine whether an antitrust violation had caused or contributed to the price spike. In collaboration with representatives of several Midwestern states, Commission staff undertook this charge.<sup>(1)</sup> This report answers that question and also reflects information collected in the course of the investigation on the possible causes of the price spike.

The completed investigation uncovered no evidence of collusion or any other antitrust violation. In fact, the varying responses of industry participants to the price spike suggests that the firms were engaged in individual, not coordinated, conduct. Prices rose both because of factors beyond the industry's immediate control and because of conscious (but independent) choices by industry participants.

In recent years, oil refiners in the United States have been operating at close to their maximum capacity utilization level. Industry statistics illustrate that oil refining capacity in the United States is generally tight, and refining capacity utilization rose from 85 percent in May 1990 to 96 percent in May 2000. The average monthly capacity utilization rate in 2000 was 94 percent. By way of comparison, the capacity utilization rate across all U.S. industries in 2000 was 82 percent.<sup>(2)</sup>

The current high capacity utilization rates in the oil refining industry leave little room for error in predicting short-run demand. Unexpected demand for a certain oil product is difficult to satisfy without reducing the supply of another oil product, and unexpected supply problems can result in temporary shortages across many oil products. Assuming that demand continues to grow, occasional price spikes in various parts of the country are likely unless refining capacity is increased substantially.

Against this backdrop, staff found no evidence of illegal collusion to reduce output or raise prices. Rather, each industry participant acted unilaterally and followed individual profit-maximization strategies. Some firms diverted production from conventional gasoline in order to maximize RFG output, while others reduced their RFG production and produced more conventional gasoline. Several firms produced gasoline for the Midwest markets in refineries that had previously not supplied those markets and shipped the gasoline into the Midwest.

Staff's investigation identified several factors that contributed to the price spike in the Midwest but were largely beyond the immediate control of the industry participants. For example, the refiners that supply gasoline to the Midwest experienced significant production problems in the spring of 2000 that disrupted the ordinary flow of operations and contributed to the general tightness of both conventional and reformulated gasoline in the Midwest and to the specific shortfalls of reformulated gasoline in the Chicago and Milwaukee areas. These problems included longer-than-expected maintenance outages, several refinery breakdowns, and unexpected difficulties in producing the new summer-grade RFG required by EPA regulations for use in Chicago and Milwaukee. This last problem was particularly acute in Chicago and Milwaukee because of the exclusive use of ethanol as an oxygenate for RFG in these markets. These production difficulties contributed to the supply shortage in the Midwest and also hindered the ability of the refiners to respond quickly to the shortage.

Compounding the supply shortage caused by the refiners' production problems were the unexpected supply disruptions resulting from the failure in the first half of 2000 of two pipelines serving the Midwest. The Explorer Pipeline, which transports gasoline from refineries on the Gulf of Mexico to Chicago, was closed for five days in March 2000 because of a rupture, and its capacity was thereafter reduced to 90 percent until December 2000. In addition, the Wolverine Pipeline, which carries a third of Michigan's gasoline supply, was shut down for nine days in June, and subsequently operated at only 80 percent of capacity for a month, causing shortages in Detroit and northern Ohio.

These problems were exacerbated because gasoline inventories in the Midwest were at or near minimum operating levels in May and June 2000. These inventory reductions were prompted by the high price of crude oil and the expectation (reflected in futures prices) that crude oil prices would fall, the industry's movement to just-in-time distribution techniques, and the reduction in supply resulting from the Explorer Pipeline break. These low inventory levels made it more difficult to respond to unexpected supply problems.

The investigation also identified a number of additional factors that may have affected Midwest gasoline prices, including: the unavailability of reformulated gasoline using MTBE as an oxygenate ("RFM") as a substitute for reformulated gasoline using ethanol as an oxygenate ("RFE") in Chicago and Milwaukee; the assertion by one refiner of certain patents relating to the production of RFG; multiple waivers of the RFG requirements that allowed the continued use of conventional gasoline in St. Louis, which increased the incentive to supply conventional gasoline to St. Louis and may have increased expectations of waivers in Chicago and Milwaukee; high crude oil prices;<sup>(3)</sup> increased demand for gasoline in the Midwest; and local gasoline sales taxes.

Although the principal causes of the price spike were largely beyond the immediate control of industry participants, the industry as a whole made errors in supply forecasts and underestimated the potential for supply shortages in the Midwest in the spring and early summer 2000. Once prices spiked, several firms acted quickly to increase production and to ship additional gasoline into the Midwest, thus moderating the severity of the price spike. Several other firms, however, delayed shipments of additional products into the Midwest in the expectation that prices would soon abate.

A significant part of the reduction in the supply of RFG was caused by the investment decisions of three firms. When determining how they would comply with the stricter EPA

regulations for summer-grade RFG that took effect in the spring 2000, three Midwest refiners each independently concluded it was most profitable to limit capital expenditures to upgrade their refineries only to the extent necessary to supply their branded gas stations and contractual obligations. As a result of these decisions, these three firms produced, in the aggregate, 23 percent less summer-grade RFG during the second quarter of 2000 than in 1999. Consequently, these three firms were able to satisfy only the needs of their branded gas stations and their contractual obligations, and could not produce summer-grade RFG to sell on the spot market as they had done in prior years. On the other hand, these three firms produced more conventional gasoline in the second quarter of 2000 than in 1999.<sup>(4)</sup>

In addition, at least one firm increased its summer-grade RFG production substantially and, as a result, had excess supplies of RFG available and had additional capacity to produce even more RFG at the time of the price spike. It thus found itself with considerable market power in the short term. This firm did sell off some inventoried RFG, but acknowledged that it limited the magnitude of its response because it recognized that increasing supply to the market would push down prices and thereby reduce the profitability of its overall RFG sales.

In sum, the evidence does not indicate that the price spike in Midwest gasoline in the spring and early summer 2000 was caused by a violation of the antitrust laws. The spike appears to have been caused by a mixture of structural and operating decisions made previously (high capacity utilization, low inventory levels, the choice of ethanol as an oxygenate), unexpected occurrences (pipeline breaks, production difficulties), errors by refiners in forecasting industry supply (misestimating supply, slow reactions), and decisions by firms to maximize their profits (curtailing production, keeping available supply off the market). The damage was ultimately limited by the ability of the industry to respond to the price spike within three or four weeks with increased supply of products. However, if the problem was short-term, so too was the resolution, and similar price spikes are capable of replication. Unless gasoline demand abates or refining capacity grows, price spikes are likely to occur in the future in the Midwest and other areas of the country.

## I. Introduction

The Federal Trade Commission has completed its investigation into the causes of the sharp rises in gasoline prices in certain Midwest markets in the spring and early summer of the year 2000. Consumers in the Midwest ("PADD II"),<sup>(5)</sup> especially in Chicago and Milwaukee, saw a significant gasoline price spike in a short period of time. Although gasoline prices have long been seasonally cyclical, rising in late spring and early summer as consumer demand increases with the onset of the summer driving season, the increases in 2000 in some local markets, particularly in the Midwest, eclipsed those experienced in past years, and were much greater than those experienced in other U.S. regions. Prices increased both for Phase II reformulated gasoline ("RFG II"), required under the Clean Air Act for certain urban markets, and for conventional gasoline used in other markets in the Midwest.

The Commission's investigation sought to determine whether those price increases were caused in whole or in part by antitrust violations. In testimony before the House Committees on the Judiciary, Commerce, and Government Reform on June 28, 2000, and the Senate Committee on Energy and Natural Resources on July 13, 2000, Chairman Robert Pitofsky and then-Bureau of Competition Director Richard G. Parker offered to deliver a final report to Congress upon conclusion of the investigation. Although the Commission's investigation was designed to identify possible antitrust violations, this report also reflects information

Commission staff collected regarding other possible causes of the price spike, whether or not actionable under federal antitrust law.

## II. Background

### A. The Spring and Early Summer 2000 Spike in Midwest Gasoline Prices

During the winter of 1999-2000, gasoline prices in the Midwest did not differ significantly from those in other areas of the country. In the spring of 2000, gasoline prices began increasing nationwide. From May 30 to June 12, 2000, the national average retail price of RFG II increased from \$1.61 to \$1.67 per gallon, before declining to \$1.61 on July 17, 2000.<sup>(6)</sup> In Chicago, however, the price increase was significantly greater. The average RFG II price in Chicago rose from \$1.85 per gallon on May 30 to \$2.13 on June 20, before falling to \$1.57 on July 24, 2000.<sup>(7)</sup> From May 30 to June 20 in Milwaukee, the average RFG price increased from \$1.74 to \$2.02, but by July 24 had fallen to \$1.48.<sup>(8)</sup>

Figure 1 in the Appendix shows the average wholesale terminal rack price of reformulated gasoline in Chicago, Dallas, Milwaukee, Louisville and St. Louis from January 1 through July 29, 2000.<sup>(9)</sup> Using the price in Dallas as a base, the price spike in the upper Midwest for reformulated gasoline began in the second week of May, reached a peak in the third week of June, and returned to normal levels by the last week of June.<sup>(10)</sup> The wholesale terminal rack price in Chicago reached a peak of \$1.55 per gallon - 45 cents more per gallon than the price in Dallas at that time. The prices of RFG in St. Louis and Louisville followed a very similar pattern to the prices of RFG in Chicago and Milwaukee. The differences in the prices of RFG in Chicago, Milwaukee, Louisville and St. Louis were less than the cost of transporting gasoline between the cities and, therefore, a firm with RFG supply in one city had no economic incentive to ship it to another. In the month of July, the price of RFG in Chicago and Milwaukee dropped below the price of RFG in Dallas.

Conventional gasoline prices in the Midwest also rose substantially. National average retail prices increased from \$1.51 to \$1.61 per gallon for conventional gasoline between May 30 and June 12, 2000, and then eased to \$1.51 on July 17, 2000.<sup>(11)</sup> Average conventional gasoline retail prices in the Midwest rose from \$1.55 to \$1.85 per gallon from May 29 to June 19, 2000, but decreased to \$1.48 by July 17, 2000.<sup>(12)</sup> Conventional gasoline prices peaked during the week of June 18-24.

Figure 2 in the Appendix shows the wholesale terminal rack price of conventional gasoline throughout the Midwest compared to Dallas during the same period covered by Figure 1. The Midwest spike in conventional gasoline prices began in about the fourth week of May. It reached its peak in mid-June, and prices had returned to normal by the first week of July. At its peak, the wholesale terminal rack price of conventional gasoline in Chicago was approximately \$1.45 a gallon. This represented a 40 cent per gallon premium over the price in Dallas.

### B. EPA Regulations Requiring the Use of Reformulated Gasoline in Certain Urban Areas

The Clean Air Act, as amended in 1990,<sup>(13)</sup> mandated the establishment of the reformulated gasoline program for metropolitan areas not attaining certain air quality standards

("non-attainment areas"). The Clean Air Act required the Environmental Protection Agency ("EPA") to establish standards for RFG, which burns more completely various hydrocarbon compounds that contribute to ozone and toxic air pollution. RFG regulations require substantially lower volatility, measured by Reid Vapor Pressure ("RVP"), for gasoline sold during the summer, to reduce its evaporation rate and, concomitantly, reduce the ozone-forming hydrocarbons released into the atmosphere. The regulations allow higher RVP during winter months because air quality is generally better during the winter and because higher volatility assists gasoline combustion in cold weather. Based on Clean Air Act criteria, the Chicago and Milwaukee metropolitan areas are the only two non-attainment areas in PADD II. In addition, the St. Louis metropolitan area (only including counties in Missouri), and the Louisville and Covington, Kentucky metropolitan areas (only including counties in Kentucky) were allowed voluntarily to "opt-in" to the RFG program.

Phase I of the EPA's reformulated gasoline program took place from 1995 through 1999. Phase II of the reformulated gasoline program began January 1, 2000, but the more stringent RFG II summer blend requirements did not begin until May 1, 2000, when terminals were required to have RFG II for wholesale purchase. Gasoline stations were required to have RFG II in their tanks by June 1, 2000. Winter-grade fuel may be sold after September 15 each year. Each type of fuel must satisfy different requirements, and the requirements vary by season and region. Requirements for winter-grade fuel and fuel sold in northern locations are slightly less stringent than summer-grade fuel and fuel sold in the southern locations.<sup>(14)</sup>

The reformulated gasoline standards require the addition of "oxygenates" to bring the oxygen content of the gasoline to at least 2 percent by weight. The two primary oxygenates are methyl tertiary butyl ether ("MTBE") and ethanol. Neither oxygenate is specifically required or prohibited in any non-attainment area. MTBE is produced in oil refineries, and can be blended into the product at the refinery, while ethanol, because of its high degree of water solubility, can be blended only at the final delivery terminal. Approximately 87 percent of the RFG used in the United States contains MTBE.

Only Chicago and Milwaukee rely exclusively on RFG II made with ethanol ("RFE"), while St. Louis and Louisville use both RFE and RFG II made with MTBE ("RFM"). Early in Phase I of the RFG program, RFG I with both MTBE and ethanol was sold in Chicago and Milwaukee. The convergence to RFE as the standard reformulated gasoline in these areas appears to have been prompted by cost advantages unique to the Midwest and environmental concerns. Ethanol is produced mainly in the Midwest, resulting in relatively low shipping costs for refineries in that region.<sup>(15)</sup> In addition, MTBE has generated concerns about groundwater contamination and other environmental consequences, leading several states, the EPA, and Congress to consider banning MTBE.<sup>(16)</sup> The federal government provides substantial tax credits for ethanol blending, and several states provide tax incentives designed to encourage ethanol use.<sup>(17)</sup>

Producing RFG with ethanol does result in some increased costs. Because ethanol increases the RVP of gasoline when it is added (whereas MTBE has no effect on vapor pressure), RFE requires a lower vapor pressure gasoline blendstock (Reformulated Blendstock for Oxygenate Blending or "RBOB"<sup>(18)</sup>) than RFM. Refining RBOB to meet the lower vapor pressure required for ethanol blending is more difficult and expensive, and may result in less final product.

### C. Basic Economic Principles Relating to Gasoline Production

### 1. Gasoline is Price Inelastic in the Short Run

As with other products, the price of gasoline will increase as the supply of gasoline decreases relative to demand. In the long run, gasoline prices across different regions of the country should be comparable (accounting for certain cost differences such as the cost of producing different formulations, differing regional transportation costs, and varying local taxes) because gasoline can be moved between regions in response to price variations, subject to transportation limits such as pipeline constraints.<sup>(19)</sup> There should also be a relatively constant relationship over time between the prices of gasoline and crude oil because the largest cost component in manufacturing gasoline is crude oil. However, some aspects of gasoline production, such as refining capacity, remain fixed in the short term. Moreover, shipping gasoline between regions cannot happen instantaneously. In the short run, therefore, there will be periods during which the prices of some kinds of gasoline vary across regions.

The term "price elasticity" refers to the percentage change in demand for a product caused by a one percent increase in price. Numerous studies have estimated the price elasticity of gasoline. Although the estimates in these studies vary slightly, all studies agree that the short-run demand for gasoline is quite price inelastic. In other words, even a substantial price spike will lead to a fairly small reduction in short-run consumption.

Given the low price elasticity for gasoline, relatively small short-term supply reductions (or demand increases) can translate into large price increases. Most studies estimate that the short-run price elasticity of gasoline ranges from -0.1 to -0.4, with a mean of -0.2.<sup>(20)</sup> Wholesale price elasticities are necessarily even closer to zero. With an elasticity in this range, a decrease in supply (or increase in demand) of five percent could explain the 30 to 40 percent increase in the wholesale price of gasoline in the Midwest in the spring and early summer of 2000.<sup>(21)</sup>

### 2. Gasoline Refining is Relatively Inflexible in the Short Run

Refining crude oil results in three principal types of hydrocarbon products: gasoline, distillate (*i.e.*, jet fuel, diesel fuel, and heating oil), and heavy oils (*i.e.*, residual fuel oil, asphalt). A refiner's ability to alter the proportions of the three products generated by refining crude oil is somewhat limited. Refiners have more, but not unlimited, flexibility in adjusting production among different formulations of gasoline. Thus, while the refiner cannot substantially increase the proportion of gasoline produced from a barrel of crude oil (as compared to the proportion of distillate and heavy oils), the refiner has significant flexibility in determining the relative proportions of conventional and reformulated gasoline it will produce. Once a refiner has decided what formulations of gasoline it will produce in an upcoming production campaign, it becomes increasingly difficult to alter the planned output of the refinery as the production campaign approaches.

Gasoline is a complex blend of different components, or blendstocks, that are combined to meet performance standards for conventional and reformulated gasolines, and to produce different grades of gasoline (*i.e.*, regular, mid-grade, and premium). Production of Phase II RFG requires several higher quality blendstocks, such as raffinate, alkylate, and toluene, that are often used in premium gasoline. In addition, producing RFE (or its immediate blendstock, RBOB) requires particular care because the combination of ethanol and the blendstock may raise RVP levels.

Each refinery is unique in the volumes of particular formulations of gasoline it can produce, since the proportion of available blendstocks and their physical properties are determined by the particular set of processing units at the refinery. Larger, more complex refineries may have a relative advantage in producing more demanding products, such as Phase II RBOB. The refineries located in the Chicago/Milwaukee area, for the most part, are not particularly large or complex.

Refining is a capital-intensive, high fixed-cost operation. Refiners attempt to operate at high capacity utilization rates. Industry statistics illustrate that capacity is generally tight, and capacity utilization has been increasing over the past decade. Industry-wide crude oil refining capacity utilization in the United States in the month of May was 85 percent in 1990, 89 percent in 1992, 93 percent in 1994 and 1996, 94 percent in 1998, and 96 percent in 2000. The average monthly capacity utilization rate in 2000 was 94 percent. This limits further the ability of refiners to increase refinery production significantly in the short run.

In recent years the Midwest has been largely self-sufficient in RBOB production, although it receives substantial imports of conventional gasoline. Gulf Coast refineries generally did not produce RBOB because most of the RFG sold outside PADD II is MTBE-based.

The planning process for operation of a petroleum refinery involves a sixty to ninety-day cycle, and is usually performed by a staff of experienced engineers using sophisticated computer models. The length of the planning cycle is largely dictated by the length of time necessary to procure and deliver crude oil supplies, often from overseas. The planned output of a refinery is ultimately based on demand forecasts, and estimates of the future prices of the refined products and the crude oil and other inputs needed to produce those products. The profit-maximizing refiner selects the most profitable mix of products given the cost of the necessary inputs. Because gasoline tends to be the highest-margin product a refinery makes, particularly during the summer months, refiners generally operate to make as much gasoline as possible.

Once the refinery has placed orders for the crude oils and other inputs it will need to produce the planned output for a particular planning cycle, the refinery has less flexibility to shift the planned mix of the three major product streams because the product mix is affected by the qualities of the crude oil to be refined. Estimates are fine-tuned as the start of the operating period approaches to reflect updated information on market conditions, inventories, and refinery operating conditions, and the availability and cost of buying supplemental intermediate blendstocks. The ability to alter the output among different gasoline formulations becomes progressively more limited due to constraints of available supplemental blendstocks, limited storage tankage for intermediate products, and pipeline shipping schedules. A few days before the actual operating period begins, which ordinarily lasts one to two weeks, a final plan is set. Once the operational plan is implemented, further alteration is quite costly, not only because of the time required to implement any changes, but also because changing the equilibrium can lead to slowed production or off-specification output that requires reprocessing. Economic theory suggests that a proliferation of gasoline types makes it more likely that there will be temporary shortages of some individual types, and the practical impediments to rapid changes in product mix may delay marketplace corrections.

### *3. The Price of Marginal Supply Acts as a Ceiling*

The refining capacity within PADD II is not sufficient to supply the needs of consumers in that region. As a result, PADD II is a net importer of gasoline. Roughly 25 percent of the gasoline consumed in PADD II is imported, mostly from refineries in PADD III (*i.e.*, on the Gulf Coast). The gasoline from refiners in PADD III is generally the "marginal supply."<sup>(22)</sup>

The price of gasoline in PADD II is ultimately constrained by the price of the marginal supply of gasoline from PADD III. A price-taking Gulf Coast refiner, producing conventional gasoline in the spring and early summer of 2000, would send gasoline along the three week pipeline journey to Chicago if the risk adjusted expected price in Chicago three weeks later exceeded the current Gulf Coast price, plus transportation costs. In deciding whether to produce and ship RBOB, a product that Gulf Coast refiners ordinarily do not produce, a refiner would calculate whether the expected price of RBOB would be enough to offset transportation costs, lost revenue from the products displaced, and the cost of switching the production process to a different mix of outputs. The price at which PADD III refiners would be willing and able to sell gasoline in PADD II acts as a cap on the price that the refiners in PADD II can charge for their gasoline.

#### **D. The Commission's Investigation**

As retail gasoline prices in the Midwest rose in late May and early June 2000, representatives of the Department of Energy and the EPA convened several meetings of refiners to determine the causes of the price spike. In these meetings and in various hearings convened by local and federal legislators throughout the period, refiners identified a number of factors as possible causes of the price spike, including: the difficulties many refiners experienced in producing the new RFG II (especially the ethanol blend); disruption of shipments over the Explorer Pipeline; problems involving another Midwest pipeline; the tripling of crude oil prices in the previous 18 months;<sup>(23)</sup> increased difficulties in switching from winter to summer-grade gasoline at terminals (because tanks essentially had to be drained before being filled with the summer blend); and a court decision upholding several patents held by Unocal Corp. relating to reformulated gasoline.<sup>(24)</sup>

The magnitude of the price increases, their particular intensity in one section of the country, and their occurrence in both conventional gasoline and RFG, prompted the Commission to consider the reasons for the price increases and, specifically, whether price fixing or other anticompetitive activity might have occurred. A bipartisan group of Senators and Representatives urged the Commission to investigate these matters.

In early June 2000, Commission staff began a preliminary investigation, relying initially on publicly available data and consumer complaints. That preliminary investigation, and the ensuing formal investigation,<sup>(25)</sup> were intended to determine whether there was sufficient evidence to conclude that violations of the antitrust laws had caused or contributed to the price spike in the Midwest. Commission staff also sought information on other potential causes of the price spike. Throughout its investigation, the Commission worked with representatives of state Attorneys General in the Midwest, many of whom conducted their own parallel investigations.

The Commission issued subpoenas to nine refiners that supply Midwest markets in late June, and to four additional refiners the following month. The Commission issued Civil Investigative Demands ("CIDs") to the refiners, requesting compilations of data and answers

to written questions, and in July, issued subpoenas and CIDs to ten entities that own or control the pipelines serving the Midwest markets. The Commission received nearly one thousand boxes of documents and more than one hundred compact disks containing data in response to its process.<sup>(26)</sup> Staff also took testimony under oath from witnesses from each major participant in Midwest gasoline markets. In addition, staff interviewed persons knowledgeable about factors that may have contributed to the price spike, industry structure, and the regulatory environment. Staff conducted a refinery site visit, retained two prominent outside economists to provide additional expertise, and reviewed thousands of pages of published materials analyzing the industry and the price and supply issues relating to spring and early summer 2000.

### III. Possible Causes of the Midwest Gasoline Price Spike

#### A. The Commission Found No Evidence that the Price Spike was Caused by Illegal Conduct

The Commission's investigation was intended principally to determine whether any behavior leading to, or resulting from, the Midwest price spike violated any federal antitrust statutes. As relevant to the analysis here, the federal proscriptions against anticompetitive conduct are contained in the Sherman Act<sup>(27)</sup> and the FTC Act.<sup>(28)</sup> Section 1 of the Sherman Act prohibits a "contract, combination . . . or conspiracy, in restraint of trade."<sup>(22)</sup> Section 2 of the Sherman Act prohibits conduct that amounts to monopolizing, an attempt to monopolize, or a conspiracy to monopolize, a market.<sup>(30)</sup> While the Commission does not have direct enforcement authority over the Sherman Act, conduct subject to the Sherman Act may be challenged under Section 5 of the FTC Act, which prohibits "unfair methods of competition."<sup>(31)</sup> In such cases, the Commission refers to legal standards developed under the Sherman Act.

The Sherman Act, as outlined above, prohibits two principal kinds of anticompetitive conduct: (1) an agreement among two or more independent firms that unreasonably restrains competition, such as an agreement to increase prices, curtail output or divide markets (Section 1), and (2) the unreasonable acquisition or maintenance of monopoly power, or an unreasonable attempt to acquire such power, which typically consists of exclusionary conduct by a single firm to prevent or impede competition (Section 2). Because it does not appear that any one firm has sufficient market power in Midwest gasoline markets to engage in illegal monopoly behavior, the Commission's investigation searched for evidence of collusive activity among refiners, retailers, transportation companies, and other participants in the market.

##### 1. Legal Standards for Finding Collusion

The critical first step in establishing a violation of Section 1 of the Sherman Act is proof of an agreement. An agreement may be explicit or tacit, and the evidence may be direct or circumstantial. Either form of agreement, and either form of proof, can support a violation. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574 (1986); *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 765-66 (1984). Since direct evidence of an explicit agreement (e.g., an admission or eyewitness testimony) rarely is available (and none was uncovered in this investigation), plaintiffs usually rely on circumstantial evidence to establish an inference of either an explicit or a tacit agreement.

Strict legal standards govern the use of circumstantial evidence to establish a conspiracy. In *Matsushita*, the Supreme Court held that "conduct that is as consistent with permissible competition as with illegal conspiracy does not, without more, support even an inference of conspiracy." 475 U.S. at 597 n.21 (citing *Monsanto*, 465 U.S. at 763-64). When equally plausible competing inferences can be derived from the conduct at issue, the plaintiff must come forward with other, "sufficiently unambiguous," evidence "that tends to exclude the possibility" that the defendants were acting lawfully. *Matsushita*, 475 U.S. at 588; see also *In re Coordinated Pretrial Proceedings in Petroleum Products Antitrust Litigation*, 906 F.2d 432, 438 (9th Cir. 1990). In *Monsanto* the Supreme Court stated: "The correct standard is that there must be evidence that tends to exclude the possibility of independent action by the [parties]. That is, there must be direct or circumstantial evidence that reasonably tends to prove that [the parties] had a conscious commitment to a common scheme designed to achieve an unlawful objective." 465 U.S. at 768.<sup>132</sup> The Court in *Matsushita* identified two separate inquiries relevant to this determination: (1) whether the defendant had "any rational motive" to join the alleged conspiracy, and (2) whether the defendant's conduct "was consistent with the defendant's independent interest." 475 U.S. at 587. Underlying the rulings in *Matsushita* and *Monsanto* is the concern that adverse inferences based on ambiguous conduct may have the effect of deterring significant procompetitive conduct. See, e.g., *Petroleum Products* at 439-40.

Under prevailing law, parallel or interdependent pricing behavior among market participants is not sufficient, standing alone, to establish the existence of an agreement.<sup>133</sup> See, e.g., *Theatre Enterprises v. Paramount Film Distributing Corp.*, 346 U.S. 537, 541 (1954) ("conscious parallelism" is not a violation of the Sherman Act); *Petroleum Products*, 906 F.2d at 444; *Clamp-All Corp. v. Cast Iron Soil Pipe Inst.*, 851 F.2d 478, 484 (1st Cir. 1988) (Breyer, C.J.), cert. denied, 488 U.S. 1007 (1989); see also *United States v. International Harvester Co.*, 274 U.S. 693, 708-09 (1927) ("The fact that competitors may see proper, in the exercise of their own judgment, to follow the prices of another manufacturer, does not establish any suppression of competition or show any sinister domination.").

The courts accordingly have held that some "plus factor" must be present to demonstrate that an unlawful agreement or understanding was reached. See, e.g., *Petruzzi's IGA Supermarkets v. Darling-Delaware Co.*, 998 F.2d 1224, 1232 (3d Cir.), cert. denied, 510 U.S. 994 (1993); *Reserve Supply Corp. v. Owens-Corning Fiberglass Corp.*, 971 F.2d 37, 50 (7th Cir. 1992). Behavior that would be unprofitable "but for" collusion may be evidence that such an agreement exists. See, e.g., *Interstate Circuit, Inc. v. United States*, 306 U.S. 208, 222 (1930) ("without substantially unanimous action . . . there was a risk of substantial loss of business and good will . . . but . . . with it there was the prospect of increased profits"); *Illinois Corporate Travel, Inc. v. American Airlines*, 806 F.2d 722, 726 (7th Cir. 1986) (plaintiff must demonstrate that "defendant acted in a way that, but for a hypothesis of joint action, would not be in its own interest"). But where each defendant has legitimate business reasons to engage unilaterally in the challenged conduct, an inference of collusion based solely on evidence of such conduct is improper. See, e.g., *City of Long Beach v. Standard Oil Co.*, 872 F.2d 1401, 1406 (9th Cir.) (defendant is entitled to summary judgment when it "provides a plausible and justifiable alternative interpretation of its conduct that rebuts the alleged conspiracy"), amended, 886 F.2d 246 (9th Cir. 1989), cert. denied, 493 U.S. 1076 (1990); *Wilcox v. First Interstate Bank*, 815 F.2d 522, 525 (9th Cir. 1987).

A variety of evidence may constitute "plus factors," such as exchange of price

information,<sup>(34)</sup> publication of wholesale price increases,<sup>(35)</sup> posting of wholesale prices and discounts,<sup>(36)</sup> evidence of meetings or other communications, especially when quickly followed by simultaneous, identical actions,<sup>(37)</sup> and similarity of language, terms, and conditions where such similarity is improbable absent collusion.<sup>(38)</sup> Some courts have treated a pretextual explanation for a firm's conduct as a plus factor,<sup>(39)</sup> while others, even within the same appellate circuit, have been less willing to rely on such evidence.<sup>(40)</sup>

## 2. The Evidence Does Not Support a Finding of Collusion

The Commission's investigation found no direct evidence of collusion, and insufficient evidence of parallel conduct and "plus factors" to support an inference of collusion. Much of the evidence collected is inconsistent with coordinated action, and instead suggests different unilateral reactions to the price spike among the various market participants. Some firms increased production over 1999 levels before and during the price spike, and several produced products for the Chicago and Milwaukee markets in refineries that had not previously sold into those markets. In addition, at least one firm that had never produced reformulated gasoline for the Chicago market produced and shipped RBOB to the Chicago area in summer 2000. Other firms produced less RBOB in late April and early May 2000 than during the same period in 1999. These individual responses suggest that firms acted independently in pursuit of their individual self interests.

Commission staff and its outside experts also analyzed arbitrage opportunities arising from the Midwest price increases. This analysis examined the price disparities in the Midwest and other sections of the country and predicted the competitive reaction of refineries to these imbalances. If collusion were present, one would expect the refiners collectively to ignore higher prices in the Midwest and not ship more product into the region to take advantage of arbitrage opportunities. As the accompanying graphs demonstrate (*see* Figures 3 and 4, Appendix [Figure 3, Figure 4]), the average price differential between Chicago RFE and Dallas RFM over the past three years was 8-10 cents per gallon ("cpg"),<sup>(41)</sup> and the average differential between Chicago and Dallas conventional gasoline prices was one cpg. Those historical differentials were exceeded for RFG around May 13, 2000, and for conventional gasoline about two weeks later. The competitive model predicts that additional gasoline supply would have been moved into the Midwest, displacing diesel fuel in the pipelines, when the price disparity reached and exceeded these historical levels. The graphs showing shipments received in PADD II from PADD III (Figures 5 and 6, Appendix [Figure 5, Figure 6]) demonstrate that a higher percentage of gasoline (and a lower percentage of diesel) was received in PADD II in June 2000 than in prior years. When one accounts for the normal shipping delay of approximately three weeks, it appears that additional supply was actually shipped into the Midwest in May 2000, at the time the differentials exceeded historical levels.

This arbitrage analysis suggests that firms behaved in a manner consistent with the competitive model. Firms acting in concert likely would have been slow to erase the geographic price disparities by moving new product into the area. Thus, neither the firms' differing responses to the price spike nor the conclusions of the arbitrage analysis are consistent with collusion to reduce supply in reaction to higher prices in the Midwest.

While the industry does engage in substantial firm-to-firm contact and exchanges of information, which may constitute "plus factors" under some circumstances, such information exchanges are customary in this industry and appear to help the market function efficiently.

Companies with an excess of a particular petroleum product at one location may trade for the same product at another location, for another type of petroleum product at the same location, or for another petroleum product at another location. These exchange agreements are motivated by factors peculiar to the industry: refineries are large-scale organizations that produce myriad products; crude oil comes in different grades that may be more suitable for some refineries than others; demand for different products varies seasonally, cyclically, and for other reasons; and the physical movement of the product is slow. A certain amount of contact and exchange of information between companies is necessary to work out the terms of the agreements. Companies also frequently buy and sell particular products at various locations for the same reasons they enter into exchange agreements. While these contacts provide opportunities for collusion, the Commission's investigation found no evidence that these contacts spilled over into illicit agreements.<sup>(42)</sup>

In sum, the Commission found no evidence of tacit or explicit collusion in the documents it subpoenaed, in the sworn testimony it received, in its examination of industry conditions, or in its economic analysis. Moreover, as described above, much of the evidence collected is inconsistent with coordinated action, and instead suggests unilateral reactions to the price spike among the various market participants.

#### **B. Other Possible Causes of the Midwest Gasoline Price Spike**

The investigation to identify possible collusion necessarily led staff to examine other factors, discussed in the following sections of this report, that may have contributed to the supply shortages and higher prices in the Midwest in the spring and early summer of 2000. The factors can be roughly grouped into two categories - three primary factors that had a direct effect on prices in the Midwest, and six secondary factors that had either an indirect impact, or an impact on prices that was not limited to the Midwest. Staff is unable to quantify the individual impact of any of these several factors on Midwest gasoline prices. Collectively, however, they provide the best explanation of the gasoline price spike in the spring and early summer 2000.

Among the primary factors that had a direct impact on prices in the Midwest were the production problems experienced by several refineries in 2000. These problems included longer than anticipated turn-arounds, unplanned outages caused by accidents, and unexpected difficulties in producing the new summer-blend RFG. Two major pipeline breakages in the spring of 2000 also contributed to the price spike by reducing conventional gasoline deliveries into the Midwest and increasing the difficulty of a prompt supply response. Both the Explorer Pipeline that carries gasoline from the Gulf Coast to the Midwest and the Wolverine Pipeline that carries gasoline from Chicago to Detroit experienced disruptions that reduced capacity for several months. These difficulties exacerbated the problem of low inventories which was caused by high crude oil prices and a trend towards lower inventories to reduce costs.

Industry participants and outside experts identified several secondary factors that may have had some marginal impact on gasoline prices. These factors include the unavailability of RFM as a substitute for RFE in Chicago and Milwaukee, Unocal patents related to the production of RFG, multiple EPA waivers granted to St. Louis to continue using conventional gasoline, high crude oil prices, increased demand for gasoline in the Midwest, and gasoline sales taxes in certain Midwestern states.

Finally, staff analyzed the industry reaction to the product shortages and consequent price spike and concluded that firms made errors in forecasting the amount of supply available from other firms and the ability of other firms to respond to any shortages, which contributed to the magnitude and duration of the price spike.

#### **1. Primary Factors**

##### **a. Refinery Production Problems**

Oil refining is a very complicated process and production flexibility is limited. The degree of flexibility decreases as the actual production date moves closer, and as input supply and output delivery commitments are made. Once an actual production "campaign" begins, changing outputs is very costly. Thus a refinery may require some time before it can respond to changes in the market, particularly if, as was the case here, it is dealing with a new gasoline specification.

In spring 2000, a number of refinery problems disrupted the ordinary flow of operations and contributed to the tight supply of both conventional and reformulated gasoline in the upper Midwest and to specific shortfalls of RFE in the Chicago and Milwaukee areas. These problems included longer-than-expected maintenance outages, refinery breakdowns and difficulty in blending RFG II. These factors contributed to a slow start in making gasoline for the summer 2000 driving season, although they generally were overcome by early June.

RBOB production in PADD II was lower in the spring of 2000 than it was in 1999. Using 1999 as a base line, the EIA estimated the amount of RBOB produced in 2000 by the eight refineries that previously supplied the Chicago/Milwaukee area with RBOB. The EIA data show that RBOB production at these refineries was down 11.2 percent in May 2000 as compared to the same period a year earlier. The production problems experienced by Midwest refiners in the spring 2000 may have contributed to this reduction in RBOB production.

The problems Midwest refiners experienced in producing RFE in the spring and early summer 2000 appear to have been largely due to the selection of ethanol as the oxygenate of choice in the Chicago and Milwaukee area. The evidence suggests that many of the production difficulties were specifically related to the fact that producing low vapor pressure RBOB is a costly and difficult process. Similar production difficulties do not appear to have been publicly reported by refiners who produced reformulated gasoline using MTBE as an oxygenate rather than ethanol.

##### **i. Refinery Turnarounds**

Some refineries in the Midwest had longer-than-expected refinery maintenance shutdowns in 2000. Refineries require periodic maintenance activities, when processing units are taken out of service and various internal parts replaced, repaired, or modified. These maintenance periods are known in the industry as turnarounds, and are normally conducted during periods of reduced demand. In mild climates such as the Gulf Coast, turnarounds occur in the late winter, while in more severe climates, such as the Midwest, turnarounds normally will occur in the early to mid-spring, *i.e.*, March and April. Turnarounds seldom result in the closure of an entire refinery, but can reduce the output of a facility for some time.

Precise information on turnaround scheduling is not readily available. Most firms do not publicize turnarounds in advance, in part to avoid disadvantage should they need to obtain intermediate blendstocks or finished products in the open market to cover supply commitments during the period of the turnaround.<sup>143</sup> Several refineries experienced longer-than-planned turnarounds in the spring 2000, which likely contributed to the general tightness in the market. The turnaround at one refinery coincided with the initial period immediately following the Explorer Pipeline break, and the unanticipated reduction in gasoline production at this refinery could have contributed to the general draw down of regional inventory levels. Another refinery incurred delays in returning a major processing unit to production, which led to supply disruptions in some parts of PADD II. At another refinery, a turnaround begun in March extended into April and reduced gasoline output by more than 25 percent. Another refinery began a turnaround in mid-March and was reported to have trouble returning to full service until late April. Still another refinery undertook an extended turnaround through most of April in part to modify a key piece of equipment to make it better suited to produce feedstock for Phase II RFE. Overall, the unexpectedly lengthy turnarounds affected gasoline supply in Midwest markets.

#### *ii. Unexpected Refinery Disruptions*

Three publically known refinery disruptions created supply problems in the spring and early summer 2000. In March, a fire in the hydrotreater unit at BP's refinery in Whiting, IN, resulted in a worker fatality and withdrawal of the unit from service for several weeks until the cause of the fire had been identified and remedied.<sup>144</sup> This cost BP a material portion of its gasoline output from the refinery. In May, thunderstorm damage at the same refinery to a cooling tower for a piece of gasoline feedstock equipment slowed production for several days. Beginning on or around June 11, 2000, Premcor's Blue Island refinery (which has an 80,000 bbl/day crude capacity) shut down completely for five days, after a lightning strike damaged the electrical substation supplying the plant.

#### *iii. RFG II Manufacturing Problems*

The difficulties in refinery operations discussed above affected the overall supply of gasoline in the region. Difficulties in producing the new, more complex RFG II contributed to supply problems specific to the Chicago/Milwaukee area. (See Figures 7-9, Appendix [Figure 7, Figure 8, Figure 9]). Refinery operators had to solve several new problems: (1) how to make the new RBOB within stringent EPA specifications; (2) how to meet other specifications (e.g., industry-wide driveability standards); and (3) how to meet those specifications without reducing other gasoline production. In addition, as discussed separately below, one firm asserted patents related to the production of RFG II, which may have contributed to some refiners' manufacturing difficulties.

Companies had differing degrees of success in their efforts to solve these problems, and their ability to do so improved as they gained experience with making summer-grade Phase II RBOB. The best prepared of the companies had made capital investments to produce lower volatility components. One company required its refinery with primary responsibility for making RBOB to produce batches in the beginning of March to gain experience in making the product. Another major refinery increased total RBOB production over 1999, but at the expense of approximately a 5 percent reduction in its total gasoline production.

Others refiners delayed the switch-over to RBOB until April, after their spring turnarounds

had been completed. Many refiners encountered the need to draw tanks down until virtually empty to produce gasoline that met the relevant specifications. For the new summer RBOB, this process required several refills, instead of the usual one or two, before the product in the tanks met specifications.<sup>(45)</sup> Once they resumed operations, some firms encountered more difficulty than others in making sufficient quantities of RBOB.

The production of summer-grade Phase II RBOB requires a large portion of high-quality ingredients. Many of these ingredients are required to make regular grade conventional gasoline and, to an even greater degree, premium grade conventional gasoline. Stripping too many of these ingredients from the conventional gasoline pool will reduce the total volume of gasoline that can be produced at the refinery. Depending on the formulation of the RFG, a one-gallon increase in RFG production can lead to more than a one-gallon decrease in conventional gasoline production. This trade-off is greater with RFG II than it was with RFG I.

Given these choices, three refineries elected to produce significantly less Phase II summer-grade RBOB compared to the Phase I RBOB they had produced in 1999. As the price differentials between conventional gasoline and RFG II widened, however, two of these refineries imported volumes of high quality blendstocks from the Gulf Coast and took other steps to allow increased production of RBOB.

Not all refineries experienced difficulty in making RBOB. Two large and complex Gulf Coast refineries, affiliated with Midwestern refiners, blended batches of RBOB within a two- to four-week period after the extent of the Midwest shortage became apparent, and shipped these batches to the Chicago area. Two other PADD III refineries successfully produced batches of RBOB but were unable to secure economic transportation to move them to Chicago.

#### **b. Pipeline Disruptions**

Two pipelines serving parts of PADD II suffered unanticipated disruptions during the first half of 2000. These pipeline disruptions directly reduced the supply of conventional gasoline in several regions. The Explorer Pipeline, which runs from Houston through St. Louis to Chicago, was closed for over five days in March 2000 because of a leak. Parts of the pipeline ran at reduced capacity for several months afterward,<sup>(46)</sup> and normal scheduling of shipments did not resume until May 2000. The Wolverine Pipeline from Chicago to Detroit broke on June 7 and was out of operation until June 16.

From March to May 2000, the capacity on the Explorer Pipeline from Houston to Tulsa was reduced by nearly 25 percent. In addition, approximately 10 percent of the line's Tulsa to St. Louis/Chicago capacity was lost due to post-break maintenance and testing activities, and service after the disruption was irregular. Because the Tulsa region is a major source of light petroleum products (primarily gasoline, jet fuel, and diesel) for the rest of PADD II, a reduction in the pool of available products in that area is likely to have a widespread effect throughout the PADD. The loss of throughput on Explorer represented about 13 percent of the net pipeline movements of light products into PADD II for March, April, and May 2000. This corresponds to about 2.5 percent of total consumption of light products in PADD II, or about 4.6 percent of light products consumption in the western portion of the PADD most heavily dependent on the Explorer line.<sup>(47)</sup>

Staff did not perform a detailed destination-by-destination, product-by-product analysis of the effects of the Explorer Pipeline break. However, news accounts, testimony, and interviews suggest that the break had a disproportionate effect on supply of RFM destined primarily for St. Louis and, to a lesser extent, conventional gasoline destined for Chicago.<sup>(48)</sup> Thus, the Explorer Pipeline break and subsequent disruptions in service were a source of upward pressure on gasoline prices throughout the region.

The Wolverine Pipeline shutdown, from June 7 to 16, affected the supply of conventional gasoline to Detroit, and caused shortages in neighboring areas (particularly northern Ohio) as gasoline was diverted to Detroit. Refiners brought product by truck from western Michigan, upstream of the break, to help ease the shortage. Retail prices of conventional gasoline in Detroit peaked at \$2.03 per gallon on June 21, 2000, and dropped to \$1.74 by July 13, 2000, which gave Michigan one of the highest average gasoline prices in the nation for that period.<sup>(49)</sup> During that period, Detroit conventional gasoline prices remained higher than those in Chicago.

#### c. Low Inventories

Inventories are held to: (1) meet anticipated seasonal demand peaks; (2) even out short-run fluctuations in supply and demand; (3) accommodate minimum or efficient shipment sizes; (4) hedge against future price movements; and (5) maintain minimum operating levels (*e.g.*, gasoline must be present in the pipeline at all times to push product further through the pipe). When actual inventories drop below minimum operating levels, the system effectively may be running on empty. EIA reported that PADD II inventory levels in May and June 2000 were at or near minimum operating levels. (See Figures 10 and 11, Appendix [Figure 10, Figure 11]).

Inventory levels in the industry have been declining for several years as firms have attempted to adopt "just-in-time" distribution techniques. These trends have yielded cost savings because capital is not tied up in "idle" stocks, but at the expense of less protection against unexpected or not fully anticipated supply problems.

Levels of conventional gasoline inventory at the end of February 2000 in PADD II were relatively low. The high price of crude oil (discussed later) appears to have caused refiners across the nation, including those in PADD II, to draw down inventories in the hopes of replenishing inventories later when prices dropped. In addition, the Explorer Pipeline break likely contributed to the overall decline in regional inventories of conventional gasoline, as companies drew them down to meet current demand. When refinery problems associated with conversion to summer-grade Phase II RFG and other refinery outages began mounting in mid-April, already low stocks became practically depleted by mid-May, which initiated the very rapid price run ups observed through mid-June. This effect was compounded by the need to drain storage tanks of winter-grade RFG before filling them with summer-grade RFG.

By early June, most refinery problems had been solved, throughput on the Explorer Pipeline had returned to 90 percent of pre-break levels, and additional supplies had begun to reach the Chicago/Milwaukee region by other transportation modes. The final mid-June price spurt was probably triggered by a return to inventory building, which limited the amount of product actually available for sale, and the unplanned, multi-day shutdown of Premcor's Blue Island refinery. The rapid increase in supply soon brought inventories above previous levels and prices fell dramatically so that, by mid-July, street prices were lower in Chicago than in a

number of East Coast cities.

## 2. Secondary Factors

### a. Unavailability of RFM as a Substitute for RFE

Chicago and Milwaukee are the only two non-attainment areas that rely exclusively on RFE. Staff considered two competitive issues related to the use of ethanol as an oxygenate in these markets. First, staff investigated whether the failure of any firms to ship RFM into Chicago and Milwaukee to ease the shortage of RFE was the result of any collusive conduct. The evidence suggests that the failure of firms to ship RFM into Chicago and Milwaukee in response to the shortage of RFE in those markets was due to legitimate logistical issues, and was not the result of any collusive conduct. Importation of RFM into Chicago and Milwaukee during the price spike would have been logistically difficult. EPA regulations prohibit the commingling of RFM and RFE anywhere in the distribution chain. To sell RFM where it had previously sold RFE, a firm must either create a dual distribution system or drain all of its storage tanks, including those both at the terminal and at retail stations, and refill them with the new product. This would have been a costly and time-consuming fix for a problem that was widely (and correctly) perceived in the industry as short-term. In any event, imports of RFM would not have arrived in Chicago and Milwaukee any sooner than imports of RBOB for local RFE production.

Second, staff investigated whether the adoption of RFE as the standard reformulated gasoline in Chicago and Milwaukee was the result of any collusive activity. Staff found no evidence that it was. The evidence suggests that the choice of RFE as the standard reformulated gasoline for Chicago and Milwaukee was the result of independent decisions by the various companies based on economic considerations (the low shipping costs of ethanol in the Midwest and the various tax incentives for ethanol) and environmental concerns (the fact that MTBE is perceived as posing environmental problems).

### b. Unocal Patents

Unocal Corp. holds five patents relating to the production of gasoline to meet the RFG II guidelines.<sup>(50)</sup> Unocal and other oil companies have disputed the role of these patents in the high prices and decreased supply of RFG.<sup>(51)</sup> Unocal was one of a group of oil companies and automakers that began meeting in the late 1980s with officials from the California Air Resources Board to develop cleaner-burning gasoline for California.<sup>(52)</sup> In December 1990, Unocal applied for its first patent, which was issued in February 1994.<sup>(53)</sup> Unocal was issued four supplemental patents, the most recent on February 29, 2000.

Unocal made its first patent public in 1995, prior to the June 1996 deadline for California gas stations to begin selling cleaner-burning fuel, and announced that it expected its competitors to pay royalties for the right to produce gasoline with its patented specifications. Six competitors - Exxon, Mobil Oil, Chevron USA, Texaco Refining & Marketing, Atlantic Richfield, and Shell Oil Products - sued, seeking to invalidate Unocal's patent. Unocal counterclaimed contending its competitors had infringed its patent. A jury found in Unocal's favor in 1997 and awarded \$69 million in damages. The Court of Appeals for the Federal Circuit affirmed the district court order on March 29, 2000, and the Supreme Court denied the petition for a writ of certiorari on February 16, 2001.

Two refiners that supply the Midwest provided evidence that they were unable to produce as much RBOB as they would have but for the Unocal patents. All other refiners were either noncommittal about the effect of the Unocal patents on their production or reported that the patents did not significantly impede their production efforts for summer 2000.

#### c. Waiver of RFG II Requirements in St. Louis

The March 9, 2000 Explorer Pipeline disruption affected the delivery of RFM to the St. Louis area. The resulting shortage of reformulated gasoline in St. Louis prompted the EPA to grant a temporary waiver from the RFG II requirements in the St. Louis area on March 17, 2000. The EPA waiver for the St. Louis area continued until June 6, 2000. Lawmakers and retail gasoline trade associations requested similar waivers in Chicago and Milwaukee in early June 2000, but EPA rejected these requests after it surveyed local refiners and concluded that supplies of RFG II in the Chicago and Milwaukee areas were "tight" but "adequate."

The waiver increased incentives to supply more conventional gasoline instead of RFM to St. Louis, thereby diminishing the supply of conventional gasoline in other areas of PADD II including Chicago and Milwaukee. To the extent existing supplies of RFM were freed up in St. Louis due to increased use of conventional gasoline, that RFM could not be shipped to the Chicago/Milwaukee area because RFE is used there.<sup>(24)</sup>

Furthermore, the possibility that the EPA would grant waivers for Chicago and Milwaukee may have contributed to the RFE supply shortage in Chicago and Milwaukee. The calls for RFE waivers for Chicago and Milwaukee met nearly universal opposition from the large oil companies, who argued that waivers would penalize companies that had invested to meet the new RFG guidelines by allowing those companies that had not invested to sell cheaper conventional gasoline. One refiner delayed its initial production of RBOB in part due to the possibility that the EPA would grant a waiver in Chicago and Milwaukee. While one cannot measure the effect of this decision, the uncertainty could have aggravated the supply situation in the Midwest.

#### d. High Crude Oil Prices

High crude oil prices have been suggested as another possible cause of the price spike in Midwest gasoline. In the oil industry, a large share of the reserves of the base commodity is owned and regulated by sovereign nation states. These states regard crude oil as their primary (and perhaps only) natural resource and tightly control how that resource is exploited.

In the second half of 1999, OPEC countries, joined by several non-OPEC oil exporting countries, curtailed the global supply of crude oil. During the same period, worldwide demand for petroleum products increased significantly, as economies in Asia and Europe recovered and the United States continued its period of strong economic growth. As a result, worldwide consumption of crude oil exceeded production in the spring and summer of 2000, and U.S. inventories were low. Prices of crude oil increased dramatically in the spring of 2000. The average price of West Texas Intermediate crude oil in the first five months of 1999 was \$12.60 per barrel, compared to \$26.20 in the first five months of 2000. Refiners responded to the crude oil price increases by cutting gasoline production and using existing inventories of gasoline to meet demand, in the expectation that inventories could be replenished when crude oil prices dropped.

While higher crude oil prices explain a substantial percentage of the national increase in gasoline prices, they do not explain why Midwest gasoline prices rose more than prices elsewhere. High crude oil prices did, however, contribute to the low inventory levels in the Midwest and elsewhere, which, as discussed above, made it more difficult to respond to the Midwest gasoline price spike.

#### e. Increase in Gasoline Demand

The inelastic demand for gasoline means that even small increases in demand can result in large price increases if supply does not also increase. Sales data suggest that increased demand for gasoline in the Midwest in spring 2000 may have exacerbated supply shortages and, therefore, the price spike. According to the data, sales of gasoline throughout PADD II increased by 2.1 percent from January to May 2000 compared to the same period a year before.<sup>(55)</sup> This is significantly higher than the national figure, which shows a *decrease* in sales of 1.3 percent for the same time period.<sup>(56)</sup> Once Midwest gasoline prices began increasing dramatically in mid-May 2000, sales in Illinois and Wisconsin began to decrease.<sup>(57)</sup>

#### f. Taxes

State and local gasoline taxes have been cited as contributing to the gasoline price spike in the Midwest. Although taxes may be a significant factor in determining the absolute level of the price of gasoline, tax rates did not change in the region at any time during the price fluctuations. Taxes rose only to the extent that some states and localities apply *ad valorem* taxes, which rise in proportion to prices, rather than specific taxes, which are unaffected by price changes.

Illinois, Indiana, and Michigan are among the states that levy *ad valorem* taxes on gasoline.<sup>(58)</sup> The city of Chicago, for example, applies a tax of \$0.495 per gallon<sup>(59)</sup> plus an 8.75 *ad valorem* tax.<sup>(60)</sup> Any gasoline price increase in the Chicago area therefore could be magnified by up to an additional 8.75 percent, although the \$0.495 per gallon tax would remain unchanged. Thus, if the retail price of gasoline in Chicago were \$1.60 per gallon, the total tax included in that amount would be slightly more than \$0.62; at a retail price of \$2.15 per gallon, the total tax would be nearly \$0.67 per gallon.<sup>(61)</sup>

### 3. Forecast Errors and Other Actions of Market Participants

The industry as a whole underestimated the likely extent of the supply shortage in spring and early summer 2000. Numerous early indications suggested the possibility of a shortfall. For example, the industry was generally aware in the first quarter of 2000 that refiners that had previously supplied RBOB to third parties in Chicago and Milwaukee might be unable to do so, that refinery staffs were anticipating having difficulty producing summer-grade Phase II RBOB, and that traders anticipated difficulty obtaining Phase II summer-grade RBOB. In forecasting production needs each refiner must estimate both the market demand and the supply of all its competitors in order to determine its own production strategy. Small forecasting errors in supply and demand can have significant short run price effects because of inelastic demand for gasoline. In planning for summer 2000, firms either underestimated the difficulty of producing or obtaining Phase II summer-grade RBOB, or overestimated the extent to which their rivals would increase supplies to mitigate the shortfall. One firm

candidly acknowledged that, at least in hindsight, it had misread these signals and consequently had underestimated the severity of the then-impending shortage. It is clear that if market participants had more accurately forecast the supply shortage, the price spike would have been dampened.

It is not the purpose of this report - with the benefit of hindsight - to criticize the choices made by the industry participants. Nonetheless, a significant part of the supply reduction was caused by the investment decisions of three firms. When planning in advance of the change-over to Phase II summer-grade RFG, three refiners that supply the Midwest made investment decisions that significantly reduced the amount of summer-grade RBOB they could produce in 2000 as compared to 1999. These decisions appear to have been driven by the increased cost of producing RFG II relative to RFG I, and the need to upgrade their refineries to be able to produce RFG II. These three firms limited capital expenditures to upgrade their refineries only to the extent necessary to satisfy their branded needs (*i.e.*, their own branded gas stations and those marketers with whom they had supply contracts) for summer-grade RBOB. As a result, these three firms produced, in the aggregate, 23 percent less summer-grade RFG in 2000 than they had produced in 1999. These firms thus were able to satisfy only the needs of their branded gas stations and their contractual obligations, and could not sell summer-grade RFG on the spot market as they had done in prior years.

Once prices began to climb, some firms increased their supply of RBOB to the Midwest market. Other firms delayed producing more RBOB in their Gulf Coast refineries because they were uncertain how long the price differentials would last and, accordingly, could not estimate whether rushing new supplies into the Midwest market would be profitable. They were concerned that if other firms also reacted by increasing supplies, prices might quickly fall and the increased supply would lower rather than raise their profits. Faced with this risk, some firms delayed taking action to see whether the price spike was short-lived or longer-lasting.

One firm increased its summer-grade RFG production substantially and, as a result, had excess supplies of RFG available and had additional capacity to produce more RFG at the time of the price spike. This firm did sell off some inventoried RFG, but it limited its response because selling extra supply would have pushed down prices and thereby reduced the profitability of its existing RFG sales. An executive of this company made clear that he would rather sell less gasoline and earn a higher margin on each gallon sold than sell more gasoline and earn a lower margin. Another employee of this firm raised concerns about oversupplying the market and thereby reducing the high market prices.

A decision to limit supply does not violate the antitrust laws, absent some agreement among firms. Firms that withheld or delayed shipping additional supply in the face of a price spike did not violate the antitrust laws. In each instance, the firms chose strategies they thought would maximize their profits.

#### IV. Conclusion

The Commission has completed its investigation into the causes of the Midwest gasoline price spike in spring and early summer 2000. During the course of its investigation, the Commission examined a host of factors that have been suggested as possible causes of the price spike. First and foremost, the Commission considered whether conduct that violated the antitrust laws - specifically, collusion - led to the price increases. Notably, the Commission's

investigation uncovered no evidence tending to demonstrate the existence of collusive behavior, and considerable evidence suggesting that collusion was unlikely. The spike appears to have been caused by a combination of structural and operating decisions, unexpected supply and production difficulties, forecasting errors by some industry participants, and decisions by some firms to limit supply as they pursued profit-maximizing strategies. The gasoline price spike in the Midwest was short-lived. Soon after prices spiked, additional gasoline was produced and imported to the region, and prices dropped as quickly and dramatically as they had risen. Notwithstanding the industry's ability to respond to the short-term problem, the long-term refining imbalance in the United States must be addressed, or similar price spikes in the Midwest and other regions of the country are likely.

**Endnotes:**

1. Staff coordinated its investigatory efforts with the Attorneys General of Illinois, Wisconsin, Michigan, Ohio, Indiana, Missouri, Iowa, Minnesota, Kentucky, South Dakota and West Virginia.
2. Board of Governors of the Federal Reserve System, *Historical Statistics for Industrial Production Capacity and Utilization: Total Industry*, G.17, Monthly.
3. Although OPEC reduced crude oil output in the second half of 1999, this cannot explain why Midwest gasoline prices rose more than in other parts of the country because OPEC's actions affected all parts of the United States similarly.
4. These three firms produced more conventional gasoline in the second quarter of 2000 than in 1999, and as a result, in the aggregate, they produced roughly the same total amount of gasoline in the second quarter of 2000 as in 1999. Once prices spiked, two of these three refiners sought to supply more RFG by utilizing additional high grade blendstocks to increase their effective capacity and by shipping in RFG from other refineries. Nevertheless, the aggregate summer-grade RFG supply of these three firms was 17 percent lower in the second quarter of 2000 than in 1999.
5. The Department of Energy divides the United States petroleum markets into five Petroleum Administration for Defense Districts. PADD II encompasses Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Ohio, Oklahoma, Tennessee, and Wisconsin.
6. Energy Information Administration, Office of Oil and Gas Daily Price Report (June 12, 2000; July 3, 2000; July 24, 2000). RFG II requirements may differ between summer and winter and also among localities.
7. EPA Data, RFG-CG Price Information, based on Oil Price Information Service data (June 14, 2000, June 23, 2000). During the week of June 19, 2000, RFG prices at some Chicago gas stations were reported to have risen as high as \$2.50. See R. Kemper & K. Mellen, "As Pressure Builds, Price of Gas Falls," *Chicago Tribune* (June 23, 2000).
8. EPA Data, RFG-CG Price Information, based on Oil Price Information Service data (June 14, 2000, June 23, 2000).
9. For Chicago and Milwaukee, the price of regular unleaded RFE is used in the graph. For Dallas, the price is for regular unleaded RFM. For Louisville and St. Louis, prices have been provided for both RFM and RFE.
10. This analysis was also performed using rack prices in Fairfax, Virginia, and Newark, New Jersey as a base, and the results were the same.
11. EPA Data, RFG-CG Price Information (June 14, 2000, July 10, 2000, July 24, 2000).
12. Energy Information Administration, Motor Gasoline Watch (June 21, 2000, July 10, 2000, July 24, 2000) at 2.
13. 42 U.S.C. §§ 7401-7626.
14. The EPA classifies St. Louis, Missouri as a Southern city.

15. Ethanol is distilled primarily from corn, and approximately 80 percent of ethanol produced in the United States comes from Illinois, Iowa, Nebraska, and Minnesota.
16. California has announced a phase out of MTBE. Bills had been introduced in the Kansas and Missouri legislatures to phase out MTBE, and Iowa has passed a law limiting MTBE content to two percent. See H.F. 772 (Appropriations), 78<sup>th</sup> Gen. Assembly, Ch. 204, Sec. 15 (1999). Similar measures have been discussed in other Midwest states. In addition, private class action lawsuits have been filed against sellers of products containing MTBE in several states, including Illinois, New York, and California.
17. Federal law provides a \$0.54 per gallon tax credit to distributors for each gallon of ethanol they blend with gasoline, resulting in a 5.4 cent tax credit for each gallon of gasoline containing 10 percent ethanol. Illinois law waives 70 percent of its state sales tax (currently 6.5 percent) for gasoline blended with 10 percent ethanol, and other states, including Minnesota and South Dakota, provide smaller tax credits for ethanol blending.
18. There are RBOBs made in special circumstances for ultimate blending to RFM, but these are not a factor in the Midwest. Accordingly, the term RBOB herein refers exclusively to RBOB for blending into RFE.
19. Most areas of the United States east of the Rocky Mountains have access to gasoline refined in Texas and Louisiana through a large network of pipelines and water transportation. West of the Rockies, transportation alternatives within the region and from other regions are more limited.
20. Because the spike in Midwest gasoline prices lasted less than two months, it is most appropriate to consider the short-run price elasticity of gasoline. The following articles contain estimates of the short-run price elasticity for gasoline ranging from -0.1 to -0.4: Archibald R, and Gillingham, R., 1980, "An Analysis of the Short-Run Consumer Demand for Gasoline Using Household Survey Data," *Review of Economics and Statistics*, Vol. 62, pp. 622-628; Puller, S. and Greening, L., 1999, "Household Adjustment to Gasoline Price Change: An Analysis Using 9 Years of U.S. Survey Data," *Energy Economics*, Vol. 21, pp. 37-52; Molly, E., 1996, "Explaining Variation in Elasticity of Gasoline Demand in the United States: A Meta Analysis," *The Energy Journal*, Vol. 17, pp. 49-60; Kayser, H., 2000, "Gasoline Demand and Car Choice: Estimating Demand Using Household Information," *Energy Economics*, Vol. 22, pp. 331-348.
21. For an elasticity of -0.2, the Midwest price increase could have resulted from a supply shortage (or demand increase) of approximately eight percent.
22. Marginal supply is the swing supply that would enter the market if prices rose and exit the market if prices fell.
23. Higher crude prices led producers to draw down inventories in anticipation of replacing them later at lower prices. See Organisation for Economic Cooperation and Development ("OECD"), International Energy Agency, Monthly Oil Market Report (July 11, 2000) at 5, [www.iea.org](http://www.iea.org). ("Refiners do not really believe today's prices are sustainable, and hesitate to run crude for product restocking.") Gasoline stocks in the United States at the end of March 2000 were estimated to be 5.6 percent below the level of March 1999; gasoline stocks in PADD II at the end of March 2000 were estimated to be 5.7 percent below the level of March 1999. Energy Information Administration, Petroleum Supply Monthly, May, 2000, historical tables on line at [www.eia.doe.gov/pub/oil\\_gas/petroleum/data\\_publications/petroleum\\_supply\\_monthly/historical/2000/2000\\_05/sustainable\\_s01\\_b.xls](http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_supply_monthly/historical/2000/2000_05/sustainable_s01_b.xls).
24. *Union Oil Co. v. Atlantic Richfield Co.*, 208 F.3d 989 (Fed. Cir. 2000), cert. denied, \_\_\_ U.S. \_\_\_ (February 16, 2001).
25. On June 21, 2000, the Commission opened a formal investigation. Midwest Gasoline Price Investigation, FTC File No. 001 0174.
26. Commission staff attempted to obtain weekly production data from the refiners to support an econometric analysis that could quantify the impact of certain variables on Midwest gasoline prices. However, few of the subpoenaed refiners maintain weekly production data in a form that could be used.
27. 15 U.S.C. §§ 1-7. The Sherman Act is enforced by the Department of Justice; it also permits suits by private claimants and state attorneys general.

28. 15 U.S.C. §§ 41-58. The FTC Act is enforced only by the Federal Trade Commission.

29. 15 U.S.C. § 1. Section 1 has been interpreted by the Supreme Court to prohibit only "unreasonable" restraints. See *Standard Oil Co. v. United States*, 221 U.S. 1 (1911). Certain kinds of agreements, such as agreements to fix prices or output, or allocate customers or territories, have been deemed so likely to be anticompetitive, absent any legitimate economic integration among the participants, that they are conclusively presumed to be illegal (*i.e.*, illegal *per se*). See *Broadcast Music, Inc. v. CBS*, 441 U.S. 1, 19-20 (1979); *Northern Pac. Ry. v. United States*, 356 U.S. 1, 5 (1958).

30. 15 U.S.C. § 2.

31. 15 U.S.C. § 45. Section 5 also reaches conduct that violates the "spirit" or policies of the other antitrust laws - that is, conduct that is similar in its likely competitive effect to other violations - but not technically within the letter of those statutes. See, *e.g.*, *FTC v. Brown Shoe Co.*, 384 U.S. 316 (1966).

32. See also *In re Brand Name Prescription Drugs Antitrust Litigation*, 186 F.3d 781, 785 (7th Cir. 1999) (Posner, C.J.) (absent direct evidence of collusion, plaintiffs must present "circumstantial evidence, economic in character, that [defendants'] behavior could better be explained on the hypothesis of collusion than on the hypothesis that each was embarked on an individual rather than a concerted course of action").

33. Parallel behavior is an observation of similar behavior by a group of competitors at about the same time. Interdependent conduct may be described as a sequence of competitive decisions that are made in response to those preceding it and in hope or expectation that others will follow it. See, *e.g.*, *Petroleum Products*, 906 F.2d at 442 n.5.

34. See, *e.g.*, *United States v. Container Corp.*, 393 U.S. 333, 336-37 (1969).

35. See, *e.g.*, *Petroleum Products*, 906 F.2d at 226-27.

36. *Id.* at 449-50.

37. See, *e.g.*, *Pittsburgh Plate Glass Co. v. United States*, 260 F.2d 397, 400-01 (4th Cir. 1958), *aff'd*, 360 U.S. 395 (1959). But evidence of meetings or other communications that shows no more than a "mere opportunity to conspire" is insufficient, by itself, to support an inference of conspiracy, at least where the defendants offer plausible, legitimate business justifications for the communications. See, *e.g.*, *Greater Rockford Energy & Tech. Corp. v. Shell Oil Co.*, 998 F.2d 391, 396-97 (7th Cir. 1993), *cert. denied*, 510 U.S. 111 (1994).

38. See, *e.g.*, *Apex Oil Co. v. DiMauro*, 822 F.2d 246, 255 (2d Cir.), *cert. denied*, 484 U.S. 977 (1987).

39. See, *e.g.*, *JTC Petroleum Co. v. Piasa Motor Fuels, Inc.*, 190 F.3d 775, 779 (7th Cir. 1999) (Posner, C.J.)

40. See, *e.g.*, *Lamb's Patio Theatre v. Universal Film Exch.*, 582 F.2d 1068, 1070 (7th Cir. 1978).

41. The historical data actually show a differential of 5-7 cpg for Phase I RFE in Chicago over RFM in Dallas. The 8-10 cent number used in the text reflects a cost-based differential for Phase II RFE and Phase II RFM that is about 3 cents higher than for the corresponding Phase I products.

42. Each company testified that prices were discussed only to the extent necessary to contract for a purchase or exchange, and no evidence was uncovered to the contrary.

43. A consulting firm, PIRA, Inc., collects semiannual forecasts of turnaround activity from a number of refiners, and uses this information to publish aggregate estimates of capacity reductions by PADD by month. PIRA apparently does not attempt to update its figures for actual turnarounds taken, nor does it track unanticipated refinery problems.

44. The Oil Daily, March 2, 3, 6, 2000; Octane Week, March 6 and April 3, 2000.

45. The EPA regulations provide two different specifications. Each batch must attain minimum levels of pollution reduction. In addition, to accommodate batch-to-batch variations, the average of all batches over the course of a season must meet higher pollution reduction targets, which means that at least some individual batches must have greater than average pollution reduction.

46. The Office of Pipeline Safety of the Department of Transportation only approved resumption of full operations in December 2000.
47. The estimate uses consumption for all the states in PADD II west of the Mississippi and Illinois, plus half of Indiana's consumption.
48. The other principal pipeline from the Gulf Coast to the Midwest is the TEPPCO pipeline. This pipeline comes no closer to St. Louis than Cape Girardeau, MO, and serves Chicago through a lateral line to Hammond, IN from Seymour, IN in the southern part of that state. Barges remain the only other cost effective means of transportation from the Gulf Coast to Chicago.
49. While Detroit is not required to use RFG, it relies on low RVP conventional gasoline, a product unique to that market. The low RVP conventional gasoline used by Detroit requires some of the same materials used to make RFE for the Chicago market; hence the Detroit gasoline price is set to some extent by competition with Chicago for scarce supplies of these blendstocks.
50. Most refiners and experts seem to believe that the production of RFE more directly implicates the Unocal patent than RFM, because the extremely low RVP required in refining RBOB for ethanol blending reduces refiners' flexibility to produce RBOB blends without following Unocal's formula.
51. See, e.g., Facts About the RFG Patents, [www.unocal.com/rfgpatent/rfgfact.htm](http://www.unocal.com/rfgpatent/rfgfact.htm); D. Koenig, Higher Gasoline Prices Predicted, AP Online, May 31, 2000; Gasoline Prices in Perspectives, [www.bp.com/consumerissues/gasolinepricesupply](http://www.bp.com/consumerissues/gasolinepricesupply); Testimony of J. Louis Frank President Marathon Ashland Petroleum LLC, Federal News Service June 29, 2000; Statement of James McCarthy, General Manager, CITGO Petroleum Corporation, Federal News Service July 20, 2000; Refineries Struggle to Keep Up With Demand, Florida Times-Union (Jacksonville, FL) May 27, 2000 at D-7.
52. See Auto/Oil Study Provisions, [www.unocal.com/rfgpatent/rfgao.htm](http://www.unocal.com/rfgpatent/rfgao.htm) at 1.
53. See RFG Emissions Research, [www.unocal.com/rfgpatent/rfgesch.htm](http://www.unocal.com/rfgpatent/rfgesch.htm) at 1.
54. At least two refiners that served the St. Louis market were left with large inventories of RFM that could only be sold at a loss when the EPA granted the waiver there.
55. EIA statistics show the following changes in sales for the states in PADD II for January through May 2000 compared to the same period in 1999: Illinois (-0.4 percent); Indiana (-2.2 percent); Iowa (+3.4 percent); Kansas (-0.5 percent); Kentucky (-1.0 percent); Michigan (+0.4 percent); Minnesota (+3.7 percent); Missouri (+4.6 percent); Ohio (+1.2 percent); and Wisconsin (+2.3 percent). Although the data show a decrease in sales in Illinois, the data also show that sales in Illinois in March through May 2000 were 1.2 percent higher than the same period a year earlier.
56. Energy Information Administration, Department of Energy, Prime Supplier Report, various issues.
57. Illinois and Wisconsin sales decreased from May 2000 to June 2000 by 3.2 percent and 1.1 percent respectively.
58. Monthly Motor Fuel, OHPI, at 10-11. Similar taxes apply in California, Georgia, Hawaii and New York. *Id.* at 11.
59. Consisting of federal tax of 18.4 cpg; statewide IL excise tax of 19.0 cpg; statewide IL storage tax of 1.1 cpg; Cook County excise tax of 6.0 cpg; and Chicago excise tax of 5.0 cpg.
60. Consisting of statewide IL sales tax of 6.25 per cent; Cook County sales tax of 0.75 per cent; Chicago sales tax of 1.00 per cent; and Regional Transportation Authority tax of 0.75 per cent.
61. In early July, Illinois followed Indiana's lead and suspended the state portion of the sales tax (5.0 percent) through the end of the year 2000. The fall in wholesale prices beginning in late June 2000 would have led to a decrease in retail prices even without the tax suspension. Other Midwestern states, including Wisconsin, rejected removal of any or all of their taxes on gasoline.



**Federal Trade Commission**  
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Washington, DC 20580

**For Your Information: May 15, 2001**

The staff of the Bureau of Economics and of Policy Planning of the Federal Trade Commission has submitted comments to the Energy Information Administration (EIA) concerning EIA's proposal to expand confidential treatment of data that it collects pursuant to its statutory mandate to manage a centralized, comprehensive, and unified energy information program. The affected information, which is collected on a plant-level basis, includes fuel consumption, quantity, quality, and cost; sales at retail and wholesale; retail sales revenue and number of customers; financial data; thermal output; and cost of purchased power. EIA proposes to now treat as confidential certain additional operational data that it collects from fossil-fueled steam-electric power plants.

EIA is concerned that with the increase in competition in wholesale markets, there is a corresponding need for protection from disclosure of commercially sensitive information.

The comment noted that the FTC has a longstanding interest in regulation and competition in energy markets, including proposals to reform regulation of the electric power and natural gas industries. The staff has submitted numerous comments concerning these issues at both the federal and state levels, and the FTC has reviewed proposed mergers involving electric power generators and companies that supply fuel for electric generators.

According to the comment, FTC staff's concern about the EIA proposal to treat additional categories of information as confidential is that it may be premature and may reduce the effectiveness of regulatory reform planning and market monitoring efforts of state and Federal regulatory and law enforcement agencies during the critical, early stages of the transition from regulation to competition. In particular, the staff comment says, the ability of state and Federal regulators and competition agencies to understand the complexities of the existing electric transmission system, and proposed changes to the system, may depend upon computer simulations and other analytical techniques that rely on comprehensive, plant-level EIA data. For example, the staff comment noted that antitrust and regulatory agencies often use these computer simulation models of the electric power grid in designing regulatory reform proposals and evaluating prospective mergers.

In the event that EIA does opt for confidential treatment of the plant-level data as proposed, some of the harm to effective

**Related Documents:**

[Electric Information Administration, Electric Power Surveys](#), VO10007  
(5/14/01)

regulatory and law-enforcement oversight might be alleviated by developing a system for selective access to the data for state as well as Federal agencies, the staff comment suggested. The Commission encourages EIA to assess the costs and benefits of the EIA proposals and of alternative approaches before reaching a final determination on expanding confidential treatment of EIA survey data.

This comment represents the views of the staff of the Bureau of Economics and of Policy Planning of the Federal Trade Commission. They are not necessarily the views of the Federal Trade Commission or any individual Commissioner. The Commission vote authorizing staff to submit the comment to DOE was 5-0.

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Copies of the staff 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; toll-free: 877-FTC-HELP (877-382-4357); TDD for the hearing impaired 202-326-2502. To find out the latest news as it is announced, call the FTC NewsPhone recording at 202-326-2710.

**MEDIA CONTACT:**

Howard Shapiro  
*Office of Public Affairs*  
202-326-2176

**STAFF CONTACT:**

John C. Hilke  
*Bureau of Economics*  
303-844-3565  
or  
Michael S. Wroblewski  
*Policy Planning*  
202-326-2155

(FTC Matter No: V010007)  
(doe-eia-comment)



**Federal Trade Commission**  
600 Pennsylvania Avenue, NW  
Washington, DC 20580

For Release: May 7, 2001

## FTC Closes Western States Gasoline Investigation

### *Investigation Finds No Illegal Activity By Oil Refiners*

The Federal Trade Commission today announced the completion of its investigation of various marketing and distribution practices employed by the major oil refiners in Arizona, California, Nevada, Oregon, and Washington ("Western States"). After an almost three-year investigation, the Commission found no evidence of conduct by the refiners that violated federal antitrust laws.

According to Commissioners Sheila F. Anthony, Orson Swindle and Thomas B. Leary, the FTC initiated the investigation to explain the differences in the price of gasoline between Los Angeles, San Francisco and San Diego. Regarding the particular question that was investigated - whether there was a violation of antitrust laws - the investigation produced no evidence of illegal conduct by the refiners.

The Commissioners write that "[t]he investigation produced no evidence of horizontal agreement on price or output at any level of supply." While zone pricing -- the practice whereby refiners "set uniform wholesale prices and supply branded gasoline directly to their company-operated and leased stations and to some independent open dealer stations within a small but distinct geographic area called a 'price zone'" - exists in the Western States, the investigation found no evidence of collusion between oil companies in furtherance of this practice.

In addition, the Commissioners state that "the investigation revealed no evidence of conspiracy or coordination" in marketing practices known as "redlining" - the refiners' practice of preventing independent gasoline distributors - "jobbers" - "from competing with them to supply branded gasoline to independent dealers in metropolitan areas."

In the absence of such a conspiracy, redlining "likely would be evaluated under the rule of reason," which "would require the Commission to show actual or prospective consumer harm." However, the investigation "uncovered no evidence that any refiner had the ability profitably to raise price market-wide or reduce output at the wholesale level, nor did it find a situation in which a refiner

#### Related Documents:

File No. 981 0187  
*In the Matter of Western States Gasoline Pricing.*

[Closing Letters \[PDF 526K\]](#)

[Statement of Commissioners Anthony, Swindle, and Leary](#)

[Statement of Commissioner Thompson](#)

adopted redlining in a metropolitan area and increased market-wide prices." As a result of these findings, the Commission voted to close the investigation.

Commissioner Mozelle W. Thompson stated in a concurring statement that despite voting with the majority, he remains "somewhat troubled by the practice of site-specific redlining that some West Coast refiners utilize as part of their distribution strategies." Thompson adds that "[s]uch vertical restraints could be unlawful in those circumstances where - whether in the Western States or other gasoline markets - the practice leads to higher-than-otherwise wholesale prices." He concludes by saying he believes that, "should the Commission find evidence in any future investigation that site-specific redlining results in anticompetitive effects without generating countervailing consumer benefits, it would challenge the practice."

The Commission vote to close the investigation was 4-0, with Chairman Robert Pitofsky recused from participating.

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Copies of the Commissioners' statement 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; 877-FTC-HELP (877-352-4357); TDD for the hearing impaired 202-326-2502. 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 CONTACT:**

Molly Boast, Director  
*Bureau of Competition*  
202-326-2039

(FTC File No. 981-0187)  
(Western.wpd)



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

Office of the Secretary

May 7, 2001

Ronald C. Redcay, Esq.  
Arnold & Porter  
Counsel for ARCO, a subsidiary of  
BP America, Inc.  
777 South Figueroa Street  
Forty-Fourth Floor  
Los Angeles, California 90017-5844

Re: *Western States Gasoline Pricing, FTC File No. 981-0187*

Dear Mr. Redcay:

The Federal Trade Commission has conducted a nonpublic investigation to determine whether certain oil refiners have adopted distribution restrictions or other practices that have lessened competition in wholesale or retail gasoline markets in the western United States, in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45, as amended, or any other statute enforced by the Commission.

Upon further review of this matter, it now appears that no additional action is warranted by the Commission at this time. Accordingly, the investigation has been closed. This action is not to be construed as a determination that a violation may not have occurred, just as the pendency of an investigation should not be construed as a determination that a violation has occurred. The Commission reserves the right to take such further action as the public interest may require.

By direction of the Commission, Chairman Pitofsky recused.

  
Donald S. Clark  
Secretary

Attachments:

Statement of Commissioner Anthony, Commissioner Swindle, and Commissioner Leary  
Concurring Statement of Commissioner Thompson



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

Office of the Secretary

May 7, 2001

Paul R. Truebenbach, Esq.  
Chevron Products Company  
Building T-4244  
6001 Bollinger Canyon Road  
San Ramon, CA 94583-2324

Re: *Western States Gasoline Pricing, FTC File No. 981-0187*

Dear Mr. Truebenbach:

The Federal Trade Commission has conducted a nonpublic investigation to determine whether certain oil refiners have adopted distribution restrictions or other practices that have lessened competition in wholesale or retail gasoline markets in the western United States, in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45, as amended, or any other statute enforced by the Commission.

Upon further review of this matter, it now appears that no additional action is warranted by the Commission at this time. Accordingly, the investigation has been closed. This action is not to be construed as a determination that a violation may not have occurred, just as the pendency of an investigation should not be construed as a determination that a violation has occurred. The Commission reserves the right to take such further action as the public interest may require.

By direction of the Commission, Chairman Pitofsky recused.

  
Donald S. Clark  
Secretary

Attachments:

Statement of Commissioner Anthony, Commissioner Swindle, and Commissioner Leary  
Concurring Statement of Commissioner Thompson



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

Office of the Secretary

May 7, 2001

Lynda Irvine, Esq.  
Equilon Enterprises LLC  
c/o Equiva Services LLC  
1 Shell Plaza  
910 Louisiana  
Houston, Texas 77002

Re: *Western States Gasoline Pricing, FTC File No. 981-0187*

Dear Ms. Irvine:

The Federal Trade Commission has conducted a nonpublic investigation to determine whether certain oil refiners have adopted distribution restrictions or other practices that have lessened competition in wholesale or retail gasoline markets in the western United States, in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45, as amended, or any other statute enforced by the Commission.

Upon further review of this matter, it now appears that no additional action is warranted by the Commission at this time. Accordingly, the investigation has been closed. This action is not to be construed as a determination that a violation may not have occurred, just as the pendency of an investigation should not be construed as a determination that a violation has occurred. The Commission reserves the right to take such further action as the public interest may require.

By direction of the Commission, Chairman Pitofsky recused.

  
Donald S. Clark  
Secretary

Attachments:

Statement of Commissioner Anthony, Commissioner Swindle, and Commissioner Leary  
Concurring Statement of Commissioner Thompson



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

Office of the Secretary

May 7, 2001

Carter Simpson, Esq.  
ExxonMobil Corporation  
3225 Gallows Road, 3D2114  
Fairfax, Virginia 22037-0001

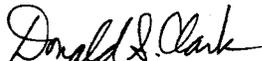
Re: *Western States Gasoline Pricing, FTC File No. 981-0187*

Dear Mr. Simpson:

The Federal Trade Commission has conducted a nonpublic investigation to determine whether certain oil refiners have adopted distribution restrictions or other practices that have lessened competition in wholesale or retail gasoline markets in the western United States, in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45, as amended, or any other statute enforced by the Commission.

Upon further review of this matter, it now appears that no additional action is warranted by the Commission at this time. Accordingly, the investigation has been closed. This action is not to be construed as a determination that a violation may not have occurred, just as the pendency of an investigation should not be construed as a determination that a violation has occurred. The Commission reserves the right to take such further action as the public interest may require.

By direction of the Commission, Chairman Pitofsky recused.

  
Donald S. Clark  
Secretary

Attachments:

Statement of Commissioner Anthony, Commissioner Swindle, and Commissioner Leary  
Concurring Statement of Commissioner Thompson



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

Office of the Secretary

May 7, 2001

Charles W. Corddry, III Esq.  
Shell Oil Company  
910 Louisiana Street, 48<sup>th</sup> Floor  
Houston, Texas 77002

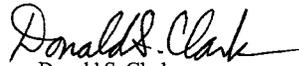
Re: *Western States Gasoline Pricing, FTC File No. 981-0187*

Dear Mr. Corddry:

The Federal Trade Commission has conducted a nonpublic investigation to determine whether certain oil refiners have adopted distribution restrictions or other practices that have lessened competition in wholesale or retail gasoline markets in the western United States, in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45, as amended, or any other statute enforced by the Commission.

Upon further review of this matter, it now appears that no additional action is warranted by the Commission at this time. Accordingly, the investigation has been closed. This action is not to be construed as a determination that a violation may not have occurred, just as the pendency of an investigation should not be construed as a determination that a violation has occurred. The Commission reserves the right to take such further action as the public interest may require.

By direction of the Commission, Chairman Pitofsky recused.

  
Donald S. Clark  
Secretary

Attachments:

Statement of Commissioner Anthony, Commissioner Swindle, and Commissioner Leary  
Concurring Statement of Commissioner Thompson



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

Office of the Secretary

May 7, 2001

Texaco, Inc.  
c/o Timothy E. Boyle, Esq.  
Howrey Simon Arnold & White LLP  
1299 Pennsylvania Avenue, N.W.  
Washington, DC 20004-2402

Re: *Western States Gasoline Pricing, FTC File No. 981-0187*

Dear Mr. Boyle:

The Federal Trade Commission has conducted a nonpublic investigation to determine whether certain oil refiners have adopted distribution restrictions or other practices that have lessened competition in wholesale or retail gasoline markets in the western United States, in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45, as amended, or any other statute enforced by the Commission.

Upon further review of this matter, it now appears that no additional action is warranted by the Commission at this time. Accordingly, the investigation has been closed. This action is not to be construed as a determination that a violation may not have occurred, just as the pendency of an investigation should not be construed as a determination that a violation has occurred. The Commission reserves the right to take such further action as the public interest may require.

By direction of the Commission, Chairman Pitofsky recused.

  
Donald S. Clark  
Secretary

Attachments:

Statement of Commissioner Anthony, Commissioner Swindle, and Commissioner Leary  
Concurring Statement of Commissioner Thompson



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

Office of the Secretary

May 7, 2001

Wilkes McClave III, Esq.  
Senior Vice President and General Counsel  
Tosco Corporation  
72 Cummings Point Road  
Stamford, Connecticut 06902

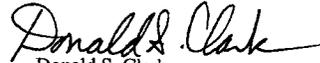
Re: *Western States Gasoline Pricing, FTC File No. 981-0187*

Dear Mr. McClave:

The Federal Trade Commission has conducted a nonpublic investigation to determine whether certain oil refiners have adopted distribution restrictions or other practices that have lessened competition in wholesale or retail gasoline markets in the western United States, in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45, as amended, or any other statute enforced by the Commission.

Upon further review of this matter, it now appears that no additional action is warranted by the Commission at this time. Accordingly, the investigation has been closed. This action is not to be construed as a determination that a violation may not have occurred, just as the pendency of an investigation should not be construed as a determination that a violation has occurred. The Commission reserves the right to take such further action as the public interest may require.

By direction of the Commission, Chairman Pitofsky recused.

  
Donald S. Clark  
Secretary

Attachments:

Statement of Commissioner Anthony, Commissioner Swindle, and Commissioner Leary  
Concurring Statement of Commissioner Thompson



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

Office of the Secretary

May 7, 2001

Diane Sinclair, Esq.  
Managing Attorney  
Ultramar Diamond Shamrock Corporation  
P.O. Box 696000  
San Antonio, Texas 78269-6000

Re: *Western States Gasoline Pricing, FTC File No. 981-0187*

Dear Ms. Sinclair:

The Federal Trade Commission has conducted a nonpublic investigation to determine whether certain oil refiners have adopted distribution restrictions or other practices that have lessened competition in wholesale or retail gasoline markets in the western United States, in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45, as amended, or any other statute enforced by the Commission.

Upon further review of this matter, it now appears that no additional action is warranted by the Commission at this time. Accordingly, the investigation has been closed. This action is not to be construed as a determination that a violation may not have occurred, just as the pendency of an investigation should not be construed as a determination that a violation has occurred. The Commission reserves the right to take such further action as the public interest may require.

By direction of the Commission, Chairman Pitofsky recused.

A handwritten signature in cursive script that reads "Donald S. Clark".

Donald S. Clark  
Secretary

Attachments:

Statement of Commissioner Anthony, Commissioner Swindle, and Commissioner Leary  
Concurring Statement of Commissioner Thompson

**STATEMENT OF COMMISSIONERS SHEILA F. ANTHONY,  
ORSON SWINDLE, AND THOMAS B. LEARY**

**Concerning**

**Western States Gasoline Pricing Investigation**

File No. 981-0187

The Federal Trade Commission has completed its investigation of various marketing and distribution practices employed by the major oil refiners in Arizona, California, Nevada, Oregon, and Washington ("Western States"). Initiated almost three years ago to explain the differences in the price of gasoline between Los Angeles, San Francisco, and San Diego, the investigation was extensive.<sup>(1)</sup> It examined whether observed price differences between metropolitan areas, service disruptions, and abrupt price increases at the refiner, wholesale, and retail levels were the result of illegal conduct by the Western States refiners. In its recently-concluded investigation of last year's gasoline price spikes in Midwestern States, the Commission was asked to identify the full array of reasons for the price increases. In the Western States matter, however, the Commission was asked to investigate solely whether there was an antitrust violation.<sup>(2)</sup> Accordingly, this statement touches only briefly on significant non-antitrust factors, such as limited refining capacity, specialized fuel requirements, or the costs of shipping gasoline or crude oil to the Western States. On the particular question that was investigated, the investigation produced no evidence of conduct that violates the antitrust laws.

The Western States have several important characteristics that set them apart from much of the rest of the U.S. gasoline market. Two of the most important characteristics are their relative isolation from the Gulf Coast, which has the largest pool of refined petroleum products in the U.S., and their unique product requirements, such as gasoline satisfying California Air Resources Board ("CARB") standards. There are also a limited number of gasoline refiners in the Western States -- BP/ARCO, Chevron, Equilon, ExxonMobil, Tesoro, Tosco, Ultramar Diamond Shamrock, and Valero -- and all refiners do not compete in all metropolitan areas. Thus, markets at the refining level of the industry are moderately or highly concentrated, as are markets at the wholesale level, which includes both refiner-controlled and independent distributors of gasoline. Our investigation examined marketing and distribution practices within this industry context.

The investigation produced no evidence of horizontal agreement on price or output at any level of supply. The investigation did identify some similarities in distribution practices. Most refiners set uniform wholesale prices and supply branded gasoline directly to their company-operated and leased stations and to some independent open dealer<sup>(3)</sup> stations within a small but distinct geographic area called a "price zone." These price zones are roughly drawn to define an effective area of local competition among retailers, based on geographic features and local demand patterns. The investigation revealed no evidence of coordination by refiners in their use of price zones or in the zones' geographic locations or dimensions.

Refiners also sell branded gasoline to independent distributors ("jobbers"), who resell to

the jobber's own stations<sup>(4)</sup> or to independent stations not served by the refiner. Most of the Western States refiners prevented their jobbers from competing with them to supply branded gasoline to independent dealers in metropolitan areas, a practice called "redlining."<sup>(5)</sup> There are two general types of redlining: 1) territorial, in which the contract between the refiner and the jobber gives the refiner the right to refuse to approve the jobber's request to supply branded gasoline to independent stations or supply its own stations in specific price zones; and 2) site-specific, in which the contract includes financial disincentives for the jobber to sell in locations directly supplied by the refiner and prevents a jobber from shipping low-priced gasoline to stations located in high-priced zones.<sup>(6)</sup> Refiners use different redlining methods and redline different geographic areas. The result is that, in certain metropolitan price zones, refiners either prevent or discourage their jobbers from undercutting refiner prices to company-supplied stations. Again, the investigation revealed no evidence of conspiracy or coordination of these practices by vertically integrated West Coast refiners.

Absent a conspiracy among refiners, redlining likely would be evaluated under the rule of reason. This would require the Commission to show actual or prospective consumer harm. Absent direct proof of harm, the Commission would need to prove a refiner had the ability profitably to raise price or reduce output. In an evaluation of consumer harm, it is also necessary to consider whether the discounted jobber prices -- which were designed in part to stimulate incremental sales in more rural areas or new markets<sup>(7)</sup> -- would be (or continue to be) offered in the event jobbers could simply solicit sales from the refiners' existing customers.<sup>(8)</sup> The investigation uncovered no evidence that any refiner had the ability profitably to raise price market-wide or reduce output at the wholesale level, nor did it find a situation in which a refiner adopted redlining in a metropolitan area and increased market-wide prices.

In conclusion, the investigation did not uncover any evidence of conduct by the Western States refiners that would, on balance, result in likely consumer harm sufficient to establish an antitrust violation. Accordingly, the Commission has closed its antitrust investigation of Western States gasoline pricing.

**Endnotes:**

1. The inquiry led to the production of over 300 boxes of documents, huge amounts of statistical data in electronic form, over 100 interviews, and over 30 investigational hearings.
2. The primary focus of the investigation was on certain distribution practices employed by West Coast refiners that could possibly have explained the price patterns in the Western States. Although the investigation concluded that this limited set of practices does not appear to violate the antitrust laws, this determination should not be construed as an opinion regarding the legality of any broader set of distribution practices or of similar practices employed by refiners in other regions.
3. Independent dealers who own the land and improvements, run the station, and agree to sell a company's brand for a specified period of time are called "open dealers." They are supplied by refiners directly or by independent distributors.
4. A more complete summary of distributional arrangements and their rationales can be found in Shepard, Andrea, "Contractual Form, Retail Price, and Asset Characteristics in Gasoline Retailing," 24:1 *Rand J. Econ.* 58 (Spring 1993).
5. Redlining and price zones are nationwide practices. This investigation focused on West Coast practices.

6. In its most common form, site-specific redlining, as the name implies, occurs when a refiner sets a price to the jobber based upon the jobber's stated delivery location. Refiners use various methods to track deliveries and thereby ensure that jobbers do not divert gasoline intended for an area where prices are low to an area where they are high. In one variation, the refiner adjusts its prices to the jobbers via a post-sale end-of-the-month accounting intended to reflect changes in retailer prices or other refiners' wholesale prices that prevailed during the preceding month. Site-specific redlining decreases the incentive for a jobber to charge lower prices to its customers. This could have the same practical effect as airtight territorial redlining, but for the reasons stated in the text, there is insufficient evidence to prove an antitrust violation.

7. Jobbers can serve multiple brands, thereby allowing their trucks to carry different brands of gasoline on successive runs.

8. Some of the major gasoline marketers in California charge different prices to different jobbers at the rack depending on the destination of the gasoline. If jobbers arbitrage gasoline between different locations, this zoning scheme will fail.

**Concurring Statement of Commissioner Mozelle W. Thompson****Western States Gasoline Pricing****File No. 981-0187**

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The Western States gasoline markets are both concentrated and isolated from other refinery markets in our country. New refineries likely could not be built in the near future to increase competition in the Western States markets, and information about the markets is readily available to market participants so that they may monitor each others' activities. Consequently, gasoline prices in the Western States markets most likely suffer oligopolistic pricing, and in fact, their prices are among the highest in the country. Further, this market structure makes the Western States gasoline markets more susceptible to the employment, and vulnerable to the possible anticompetitive effects, of distributional restraints.

The Commission has closed the investigation into whether certain distribution practices employed by the Western States gasoline refiners amount to antitrust violations. I voted to close our investigation because I believe that insufficient evidence exists showing that any of the Western States refiners' distributional practices have themselves caused higher wholesale and retail prices for gasoline. Notwithstanding my vote, I remain somewhat troubled by the practice of site-specific redlining that some Western States refiners utilize as part of their distribution strategies. Such vertical restraints could be unlawful in those circumstances where - whether in the Western States or other gasoline markets - the practice leads to higher-than-otherwise wholesale prices.<sup>(1)</sup>

Site-specific redlining is a disconcerting pricing practice that creates *de facto* territorial restrictions on jobbers. This type of restriction can limit the ability of independent jobbers to supply wholesale gasoline to those areas that demand it most, for example, California's highest priced wholesale and retail markets. Such artificial restraints can forestall natural market forces from lowering the high prices in these local markets. Additionally, while I believe that the Commission's analysis does confirm that site-specific pricing can increase wholesale prices (despite the fact that it cannot be proved in this particular case), the investigation did not uncover compelling evidence that site-specific redlining generates any particular cognizable benefits to consumers (*i.e.*, economic efficiencies, such as encouraging, or enhancing the ability of, dealers to provide higher quality services to their customers).

The Commission has vigilantly protected the competitiveness of the nation's energy sector for years through its enforcement actions. I therefore am confident that, should the Commission find evidence in any future investigation that site-specific redlining results in anticompetitive effects without generating countervailing consumer benefits, it would challenge the practice.

**Endnote:**

1. Perhaps the most compelling evidentiary case would be where a refiner places an existing station's distributor under a new site-specific redlining provision in a highly concentrated market and the practice causes wholesale prices to increase market-wide (thus decreasing intrabrand competition without increasing

interbrand competition). See, e.g., *Continental T.V., Inc. v. G.T.E. Sylvania, Inc.*, 433 U.S. 36 (1977).

# Marathon Ashland Withheld Gasoline

some of its Alaskan oil to Asia at a time when refined products were tight in the West. London-based BP has since halted such exports and said its exports were well within the law.

The FTC said in a late March report that actions by an unidentified major Midwest refiner were among the reasons prices soared by 26 cents a gallon in three weeks in June 2000, to \$2.13 a gallon for regular unleaded in Chicago and to \$2.02 in Milwaukee. The intensity of the price spikes, coming just as Midwest gasoline marketers were reeling out a new federally required lower-emissions gasoline, caused widespread outrage and led Congress to call for the commission's antitrust probe.

In explaining the many reasons for the spikes, the FTC said that "a significant part of the supply reduction" was caused when three unidentified companies produced 23% less of the new low-emissions gasoline in 2000 than they produced of the old blend in 1999. The commission said the production decisions appear to have been made independently for economic reasons, even by the alleged fuel refiners, those specifically named. Refiners who first acquired the new lower-emissions gasoline last summer in about one-third of the country, including densely populated cities in the Midwest.

But unlike these other companies, Marathon Ashland, a Findlay, Ohio, refining and marketing joint venture between Ash-

land Inc. and the Marathon Oil Co. unit of USX-Marathon Group, substantially increased its production of the new lower-emissions gasoline. Then, despite its excess supplies, the company limited the volume it sold to help keep prices high, the FTC found. The company "thus found itself with considerable market power in the short term," the report said.

Marathon Ashland also argued that the agency took information about supplies out of context. She said the company sold "significant" amounts of its gasoline to competitors who needed it. "Marathon did everything in its power to keep that supply in the Midwest steady," she said.

Marathon Ashland says problems on two key Midwest gasoline pipelines constrained its efforts. "We pushed as much as we could through the pipelines," Ms. Casey said. "We even drove trucks up from southern Ohio and Canada to try to get supply into the area."

In its investigation, however, the FTC said Marathon Ashland executives said they were trying to maximize profits. One executive "made clear that he would rather sell less gasoline and earn a higher margin on each gallon sold" than sell more and lower profits, the report said. Another employee fretted about the possibility of losing the market and thus reducing high gasoline prices.

Mr. Casey wouldn't comment on what

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, NJ 07102  
) 848-7043

## Peregrine Systems Inc. Agrees to Acquire Remedy Corp., a Rival, for \$1.09 Billion

By NIKHIL DEGUAN  
Staff Reporter of THE WALL STREET JOURNAL  
Peregrine Systems Inc., moving to expand its software business in serve small



the executives said or on whether Marathon Ashland's actions were intended to maximize profits.

The steep prices substantially boosted profits for Marathon Ashland, which operates 21 retail outlets in 21 states, particularly in the Midwest and Southwest. USX filings show the joint venture had after-tax refining and marketing profit of \$34 million in the second quarter of 2000, or about 10.4 cents a gallon on all petroleum products sold, more than double from the year before.

The price spikes bolstered profits of other companies as well, especially BP, which has a large Midwest presence through its Amoco stations. In its investigation, the FTC also attributed the price run-up to a raft of other factors, including unexpected supply and production difficulties, unplanned refinery outages, forecasting errors by some companies, tight refining capacity and low inventories. In addition, only Chicago and Milwaukee rely exclusively on low-emissions gasoline made with corn-based ethanol. Marathon Ashland is the nation's largest blender of ethanol for gasoline.

Robert Pirofsky, who resigned as chairman of the FTC a week ago, said the main reason for volatile gasoline prices in the U.S. last year was tight refining capacity. "When you operate above 90% capacity every summer," he said. He also said that companies sometimes take advantage of tight market to boost profits; he decline to name any that had completed its investigations. The separate inquiry by California's attorney general into the California market remains active.

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Thursday, June 7, 2001

US Refiners See Even Greener Pastures Ahead, Forecast Record Profits for Second Quarter.

US independent refiners say they are on pace to exceed last year's record profits, due to robust refining margins, which have resulted in large amounts of surplus cash flow for companies to use for growth-oriented acquisitions and large share repurchases this year.

Valero and Sunoco both announced this week that second-quarter profits would exceed Wall Street forecasts by a hefty margin, owing largely to strength in the US gasoline market, where profit margins soared in April and May.

Valero said it expects to earn more than \$4/share for second-quarter 2001, up from its earlier forecast of \$3.25-\$3.75/share. In the month of April alone, Valero said it earned approximately \$1.90/share, or twice the amount the company earned in all of the second quarter of 2000.

"Refined product margins and discounts for our key sour crude feedstocks have improved to record levels during the second quarter," said Valero Chairman and Chief Executive Bill Greehey. "We expect that the underlying strength in market fundamentals plus the benefits from our capital improvements over the last year will contribute to a record second half of the year and another great year in 2002," he added.

Earlier this year, Valero agreed to acquire fellow San Antonio-based refiner Ultramar Diamond Shamrock (UDS). Besides the \$4 billion cash and stock offer for UDS, a transaction in which Valero will also assume about \$2 billion in debt, it has also signed a lease with purchase option with El Paso for its 115,000-barrel-per-day refinery in Corpus Christi, Texas. (OD June5,p1). When both transactions are completed, Valero will be the largest US refiner, blowing past super major Exxon Mobil.

A combination of low product inventories, tightening environmental specifications on fuels, and strong demand has led to higher-than-normal refining margins in the US over the past year, lining the pockets of refiners. Valero earned \$400 million in surplus or "free" cash flow in 2000 and had over \$200 million in the first quarter of 2001.

Philadelphia-based Sunoco said earlier this week that it anticipates free cash flow of approximately \$400 million this year. The company said that its second

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quarter-earnings would be in the range of \$1.75 to \$2.25/diluted share (\$145 million-\$190 million), well ahead of analysts' average estimate of \$1.63/share, as tracked by First Call/Thomson Financial.

Sunoco Chairman and Chief Executive John G. Drosdick said the company expects to be "well ahead of last year's record earnings pace," and that large amounts of free cash flow will allow it to be "aggressive in pursuing both additional asset growth and share repurchases in the future."

By the end of the second quarter, Sunoco expects to have bought back the \$150 million worth of shares remaining under its current repurchase program.

The company also announced the acquisition of 65 Coastal-branded retail sites in the southeastern US from El Paso earlier this week. The deal includes supply contracts with 24 Coastal distributors for 163 distributor sites. Of the 65 directly owned sites, 61 are located in Florida and most have convenience stores.

Paul Merolli.

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---- INDEX REFERENCES ----

NEWS SUBJECT: English language content; Earnings Projections; Performance Corporate/Industrial News; Earnings Projections; Earnings; Refined Products; Refinery Outages (ENGL C152 C15 CCAT ERP ERN PET REF)

MARKET SECTOR: Energy (ENE)

INDUSTRY: Oil-Integrated Majors (OIL)

PRODUCT: Oil & Gas (DGA)

REGION: United States; North American Countries; United States; North America (USA NAMZ US NME)

Word Count: 518  
6/7/01 OILDAILY (No Page)  
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**CAROL M. BROWNER**  
**ADMINISTRATOR**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**BEFORE THE**  
**COMMITTEE ON GOVERNMENT REFORM**  
**U.S. HOUSE OF REPRESENTATIVES**  
June 28, 2000

Thank you, Mr. Chairman and Members of the Committee, for the invitation to appear here today. I appreciate having the opportunity to share what we know about the recent sharp increases in gasoline prices, particularly in the Midwestern part of the country. I also will explain the Environmental Protection Agency's efforts, in coordination with the Department of Energy and the Federal Trade Commission, to address the situation.

Mr. Chairman, first and foremost we are very concerned that consumers receive the air quality benefits of the clean burning gasoline (also called reformulated gasoline, or RFG) program at a fair and reasonable price. In the following testimony I will show that the cost of producing RFG does not account for the extremely high price differentials we have seen in the Chicago and Milwaukee areas. As EPA reviewed the various requests for waivers from the RFG program, factors such as the pipeline, tank turnover and patents were examined. We do not believe that these factors adequately explain the price differentials that we have seen in the Chicago and Milwaukee areas.

Let me begin with a history of the RFG program.

*History of RFG*

When Congress passed the Clean Air Act Amendments of 1990 it put in place a number of programs to achieve cleaner motor vehicles and cleaner fuels. These programs have been highly successful in protecting public health by reducing harmful exhaust from the tailpipes of motor vehicles. In the 1990 Amendments, Congress struck a balance between vehicle and fuel emission control programs after extensive deliberation. The RFG program was designed to serve multiple national goals, including air quality improvement, enhanced energy security by extending the gasoline supply through the use of oxygenates, and encouraging the use of domestically-produced, renewable energy sources.

Congress established the overall requirements of the RFG program by identifying the specific cities in which the fuel would be required, specific performance standards, and an oxygenate requirement. The oil industry, states, oxygenate producers and other stakeholders were involved in the development of the RFG regulations in 1991 through a successful regulatory negotiation. EPA published the final regulations establishing the detailed requirements of the two-phase program in early 1994. Thus, the oil companies and other fuel providers have had six years to prepare for the second phase of the program that began this year. In addition, the oil industry has been involved in an EPA RFG implementation advisory workgroup since 1997 and at no time during those discussions did the companies raise concerns about production, supply or distribution problems that might occur.

The first phase of the federal reformulated gasoline program introduced cleaner gasoline in January 1995 primarily to help reduce vehicle emissions that cause ozone

(smog) and toxic pollution in our cities. Unhealthy smog levels are a significant concern in this country, with over 100 million people living in 36 areas currently violating the 1-hour ozone standard.

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

The Clean Air Act Amendments of 1990 also required that RFG contain 2.0 percent minimum oxygen content by weight. Neither the Clean Air Act nor EPA requires the use of any specific oxygenate. Both ethanol and MTBE are used in the current RFG program, with fuel providers choosing to use MTBE in about 87 percent of the RFG. Ethanol, however, is used exclusively in RFG in the upper Midwest (Chicago and Milwaukee).

Ambient monitoring data from the first year of the RFG program (1995) confirm that RFG is working. RFG areas showed significant decreases in vehicle-related tailpipe emissions. One of the air toxics controlled by RFG is benzene, a known human carcinogen. The benzene level at air monitors in 1995, in RFG areas, showed the most dramatic declines, with a median reduction of 38 percent from the previous year. The emission reductions which can be attributed to the RFG program are the equivalent of taking 16 million cars off the road. About 75 million people are breathing cleaner air because of cleaner burning gasoline. Since the RFG program began five years ago, it

has resulted in annual reductions of smog-forming pollutants of at least 105 thousand tons, and toxic air pollutants by at least 24,000 tons.

As required by the Clean Air Act, the first phase of the RFG program began in 1995 and the second phase began in January of this year. As an example of the benefits, in Chicago, EPA estimates that the Phase II RFG program will result in annual reductions of 8,000 tons of smog-forming pollutants and 2,000 tons of toxic vehicle emissions, benefiting almost 8 million citizens in the Chicago area facing some of the worst smog pollution in the nation. This is equivalent to eliminating the emissions from 1.2 million cars in Illinois.

Administration Response to Increasing Prices

In early June, as gasoline prices rose, particularly in the Midwest, EPA and DOE invited Midwest oil refiners to a meeting in Washington, DC. Simultaneously, EPA, DOE and the Energy Information Agency (EIA) sent two teams of technical experts to the Midwest to investigate the situation and to talk to refiners, distributors, pipelines, jobbers, terminal operators and retail outlets. Following those meetings, which occurred on June 12 and 13, EPA Administrator Browner and DOE Secretary Richardson sent a joint letter on June 15 to Chairman Pitofsky requesting that the Federal Trade Commission conduct a full and expedited formal investigation into the pricing of RFG in Chicago and Milwaukee.

Since June 15, the wholesale price of reformulated gasoline has dropped by over 38 cents per gallon in Chicago and Milwaukee. The Oil Price Information Systems (OPIS) has reported that the wholesale price differential between RFG and conventional gasoline in nearby cities has dropped to less than 1 cent a gallon in Chicago and 8

cents a gallon at Milwaukee terminals.

In our discussions, representatives of oil companies listed a number of factors which they believed contributed to the price differential between RFG and conventional gasoline in the Midwest. These included: the additional cost of producing RFG phase II, temporary shutdown of the Explorer Pipeline, the difficulty with replacing winter gas with summer blends (draining tanks), and the Unocal patent. I would now like to discuss each of these factors and show why EPA believes even taken together they do not account for the high gasoline prices.

Production Costs for RFG Do Not Explain Price Increases

As I stated earlier, we are very concerned that consumers receive the benefits of the RFG program at a fair price. Across the country hundreds of communities are benefitting from RFG II for pennies per gallon. In fact, this Monday (June 26), the average retail price of conventional gasoline across the country was \$1.65 per gallon. EPA has calculated, based on EIA and OPIS surveys, that the average retail price for RFG II everywhere except in Chicago and Milwaukee was \$1.64 per gallon, while the average retail price in Chicago and Milwaukee was \$2.08 per gallon.

EPA strongly disagrees that the RFG program is responsible for increases in gasoline prices in the Midwest. In fact, EPA's estimates of the average cost for the production of Phase II RFG range from 4 to 8 cents more per gallon than conventional gasoline (with the use of either ethanol or other oxygenates). Several studies agree with EPA's estimates of the average costs:

Analysis by Bonner and Moore Management Science, a nationally recognized

firm that specializes in refinery cost analysis, estimated that RFG I would add 3-5 cents more per gallon to the average cost compared to conventional gasoline. Subsequent studies by Bonner and Moore and Oak Ridge National Laboratory estimated that RFG II would add 1-2 cents to the average cost of RFG I or 4-7 cents to the average cost of conventional gasoline. Oak Ridge National Laboratory estimated that the average added cost of blending ethanol into RFG II as compared to RFG I was about 1 cent more per gallon.

As I have already stated, over the past week, the wholesale price differential between RFG and CG has dropped dramatically in the Chicago/Milwaukee area. We do know that this differential is now in line with differentials observed in other parts of the country. EPA does not believe that the cost of complying with RFG regulations accounts for the extremely high price differentials we have seen in the Chicago-Milwaukee areas.

*Temporary Shutdown of Explorer Pipeline*

EPA investigated the situation with the Explorer pipeline to respond to the waiver requests we received and would like to share our findings. The Explorer pipeline has historically provided 10 to 15 percent of the RFG supply for the Chicago/Milwaukee area. The outage of the pipeline in mid-March meant a loss of 108,000 barrels of RFG destined for the Chicago area. Chicago consumes about 200,000 barrels of gasoline a day. Thus, the RFG lost due to the Explorer pipeline outage was less than one day's RFG needs for Chicago. Since mid-March, the Explorer pipeline from Houston to Tulsa

has been running at 90 percent capacity, while the pipeline north of Tulsa to the Midwest has been capable of operating at 100 percent capacity. The supply of RFG to the Midwest has increased this year over last year and, in fact, for the month of June refiners expected to supply 650,000 more barrels of RFG this year than last year. The Explorer pipeline has informed us that more RFG could be sent if the companies elected to do so. For example, the pipeline company has informed us that, beginning earlier this month deliveries of RFG to Chicago have increased by approximately 100,000 barrels per ten day cycle.

**Tank Turnover**

Tank turnover refers to the need to replace winter gasoline in terminal storage tanks with summer blends. Fuel providers have been doing this for over ten years to comply with summertime gasoline volatility requirements. This normally begins in April and, as required by regulation, the tanks at terminals must all meet summertime RFG requirements as of May 1st.

**Unocal Patent**

EPA has heard comments as to the impact of the Unocal patent. While we understand that this matter may be in litigation, the refiners have told us in meetings with them that they are able to produce RFG that is not subject to the patent. In our discussions with refiners and with Unocal, no one has identified any cost or supply issues related to the patent that could in any way explain the price increases for RFG that we have seen in the Midwest over the last two months.

**Waiver Issues**

In recent weeks there have been many calls for EPA to waive the RFG Phase II

requirements in Milwaukee and Chicago. The RFG regulations provide for an administrative waiver under very limited circumstances - extreme and unusual circumstances, such as Acts of God or natural disaster, where the refiner or importer is unable to comply with the RFG requirements despite their exercise of due diligence and planning. The various criteria for an administrative waiver under the regulations have not been met in the Milwaukee or Chicago area, so EPA has treated all of the requests for a waiver as requests for enforcement discretion. Enforcement discretion is normally used in situations such as occurred in St. Louis early this spring, where the short term shut down of the Explorer pipeline led to actual and acute shortages. The pipeline supplies on average 70 percent of fuel delivered to St. Louis.

For Chicago and Milwaukee the supply of RFG continues to be adequate and prices are going down. All refiners have strongly recommended that EPA not grant RFG waivers. It is highly uncertain what effect a waiver would have on supply and prices. Refiners would need to make adjustments and switch gears, imposing short term costs and the possibility of supply problems. No RFG Phase I is currently available, and supplies of conventional gasoline are tight as well. Waiving the RFG Phase II requirements under these kinds of circumstances could exacerbate the supply and price situation in the Midwest, for both RFG and conventional gasoline.

Conclusion

In closing, I would like to reiterate the following points:

- Clean burning RFG II is providing public health benefits to almost 75 million citizens nationally and nearly 8 million in the Chicago area alone.

- EPA believes the cost of producing RFG II does not account for the extreme prices being paid by Midwest consumers. The pipeline disruption, the tankage issue, the Unocal patent and its implications, as well as ethanol use, have all been analyzed. EPA does not believe that these factors adequately explain the price increases we have seen in recent weeks.
- We are concerned that consumers are paying these high prices for RFG II.

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

**TESTIMONY OF  
CAROL M. BROWNER  
ADMINISTRATOR  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
BEFORE THE  
COMMITTEE ON GOVERNMENT REFORM  
U.S. HOUSE OF REPRESENTATIVES**

**September 21, 2000**

Thank you, Mr. Chairman and Members of the Committee, for the invitation to appear here today. The Administration and the Environmental Protection Agency (EPA) welcome the opportunity to address the issue of energy and the protection of our environment.

The American public deserves an adequate energy supply and a high standard of environmental protection. Both are clearly achievable. The Clinton Administration has excelled in ensuring both environmental improvement and superior sustained economic growth.

The Clean Air Act is one of this country's most important environmental statutes, especially as strengthened by Congress in 1990 in a law signed by then President Bush. This Administration has aggressively implemented the Act to protect public health, and has done so in a sensible way. Even in the face of impressive economic growth, pollution reductions are occurring and we are finding ways to use energy more efficiently and cleanly.

Although we've been vigilant in protecting public health, we've done so in reasonable ways so that the economy has grown. For example, over the past decade the nation's gross domestic product increased 32 percent and vehicle miles traveled increased 30 percent – while aggregate emissions of six primary air pollutants decreased 9 percent.

More important than these impressive numbers is the human health story associated with reductions in air pollution. Upon full implementation of the Clean Air Act Amendments of 1990, the central estimates in a peer-reviewed EPA study of the annual benefits to the nation will

include: 23,000 fewer incidences of premature mortality; 67,000 fewer cases of chronic and acute bronchitis; 64,000 fewer respiratory and cardiovascular hospital admissions; and 1.7 million fewer asthma attacks. No one can disagree that the benefits of the Act have clearly outweighed the costs.

Communities across the country have benefitted from cleaner air. Since 1990, an unprecedented number of cities have met the health-based national ambient air quality standards. For example, of the 42 carbon monoxide (CO) areas designated as nonattainment in 1991, only 6 areas continue to experience unhealthy levels of CO, which contributes to heart pain, or angina.

Energy production and use are major sources of air pollution and its resulting health and environmental effects. The burning of fossil fuels ranging from coal to diesel fuel is a major source of air pollution. In 1998, for example, electric utilities emitted 67% of the nation's sulfur dioxide (SO<sub>2</sub>) emissions and 25% of the nitrogen oxide (NO<sub>x</sub>) emissions. Both of these pollutants are damaging to public health and the environment. Sulfur dioxide is responsible for adverse health effects including breathing and respiratory symptoms, damaged lung tissue, and aggravation of existing respiratory and cardiovascular diseases. Nitrogen dioxide (NO<sub>2</sub>) contributes to increased respiratory illness in children, aggravated asthma, and increased susceptibility to respiratory infections, for example. Both of these pollutants contribute to acid rain, crop damage, and decreased visibility to name but a few of the adverse impacts on our environment.

In addition to providing health benefits and a cleaner environment, a positive economic byproduct of our environmental progress has been the tremendous improvements in environmental protection technology – improvements in removing pollution from the air and water and at a lower cost.

The U.S. electricity generating sector has helped develop and been the beneficiary of reduced clean air technology costs and higher environmental performance for the past two decades. For example prior to 1980, dry scrubbers for power plants (flue gas desulfurization) generally achieved a 70% reduction in SO<sub>2</sub> emissions. Post-1990 wet scrubbers routinely achieve a 95% reduction in SO<sub>2</sub> emissions. The cost of cleaning the air has been going down as well. In Phase I of the Acid Rain Program, the average capital cost for scrubber installation was as high as \$361/KW. The initial costs for installation of a scrubber under Phase II are as low as \$100/KW.

At EPA, we are acting to ensure that efficient energy markets are also environmentally sound. Increasing the supplies of natural gas, oil, and electricity are not the only ways that Congress can help meet the energy needs of American families and businesses. If we use the energy we have more efficiently, and if we use cleaner renewable energy sources like wind, solar, and biomass, then we can achieve tremendous benefits to the environment even as we fuel the growing energy needs of our economy. Clean energy and energy efficiency have always been an important part of the Administration's energy policy.

Since 1992, EPA and DOE's Energy Star programs have been helping businesses and families select energy-efficient products that save money on energy bills while also helping to conserve energy supplies and reduce air pollution. A typical family can save up to \$400 on their annual energy bills by choosing Energy Star products. New Energy Star gas furnaces, for example, can reduce a family's heating bill by 25-40% compared to old furnaces.

In the summer, Energy Star air conditioners, heat pumps and appliances help reduce the strain on the power system during heat waves. Reducing peak electricity demand on hot summer days not only helps prevent power disruptions, it also prevents additional air pollution from

power plants on likely ozone alert days, protecting the health of children and other vulnerable groups.

The Energy Star programs have already had a sizable impact in reducing the nation's peak power demand. Energy Star has eliminated the need for over 10,000 megawatts of peak summer generating capacity (which is about half the total peak demand in New England) while saving businesses and consumers more than \$4 billion on this year's energy bills and also reducing air pollution.

Unfortunately, Congress' failure to fully fund the Energy Star partnerships has prevented EPA from making further reductions in peak electricity demand that would have improved the reliability of the power system. If Congress had fully funded the Administration's requests for EPA's Energy Star Programs over the past several years, electricity demand this summer could have been up to 3,000 megawatts lower than it is currently, equivalent to the power output of more than 10 average-size power plants.

Congress has also failed to provide funding for the Clean Air Partnership Fund, which would provide resources for state and local governments to work with businesses to develop innovative energy efficiency strategies such as investments in clean distributed power sources that increase the nation's power supply.

Once again, both the House and Senate Appropriations bills for 2001 fail to fully fund the Energy Star program, and failed to provide any funding at all for the Clean Air Partnership Fund. The President remains committed to these programs, and I urge Congress to join us in taking an important step for improving power reliability for the future. If Congress fully funds the Administration's request for the Energy Star Programs, then -- over the next decade -- families and businesses could save an additional \$35 billion on their energy bills while conserving

enough electricity to light 40 million homes in America. These investments would result in a reduction of 850,000 tons of NO<sub>x</sub> over the next decade.

Let me also note that the President's electric utility restructuring proposal, which Congress has failed to enact, contains strong policy initiatives to promote energy efficiency and renewable energy. The proposal includes a renewable energy portfolio standard to increase the use of electricity from renewable sources to at least 7.5 percent of sales by 2010; a \$3 billion per year Public Benefits Fund to spur greater investment in energy efficiency and renewable energy technologies; and a green labeling requirement to inform consumers about clean energy options.

Let me turn to the issue of regulations, and why EPA firmly believes that a reliable energy supply and protective environmental regulations can work together. While environmental protection does add to the cost of our energy supply, it cannot be considered the dominant driver in terms of energy prices or supply. The role of the price of crude oil remains the dominant factor affecting the gasoline and home heating oil price rises.

Let me assure you that the Environmental Protection Agency takes the issue of adequate energy supplies very seriously. I recognize that reliable supplies of electric power, home heating oil, and natural gas are all critical for the continued welfare of America's families. Where EPA and the Administration believe a forthcoming regulation may complicate an energy market, we have acted with foresight to incorporate appropriate flexibility into environmental regulations while maintaining the strongest protection of U.S. human health and the environment.

When developing regulations, we fully consider the impacts their timing may have on maintaining adequate energy supplies, and include provisions to provide flexibility and sufficient lead time. For example, concern has been expressed about the feasibility of electricity generators to comply with regional strategies to reduce emissions of ozone-forming chemicals (NO<sub>x</sub> SIP call

and Section 126 petitions). The programs, which affect large industrial and electrical combustion units, use a cap-and-trade mechanism to achieve the required reductions in a flexible and cost-effective manner. EPA's analysis shows that it is technologically feasible to install the appropriate pollution control technologies to comply with the recent NO<sub>x</sub> reduction regulations under the NO<sub>x</sub> SIP call, without creating electricity reliability problems. There is considerable flexibility in the system. Nevertheless, to further assure reliability, EPA is allowing states to have a supplemental pool of credits -- including credits for early reductions -- to assist those facilities that experience unexpected problems.

We have also worked closely with industry and other stakeholders to design the Tier II automobile tailpipe standards and low-sulfur gasoline rule to be reasonable, flexible and cost-effective. To avoid supply problems, the rule gives refiners substantial lead time to produce low-sulfur gasoline. For most refiners, requirements phase in between 2004 and 2006, and qualifying small refiners will have additional flexibility through 2008. The rule provides compliance flexibility through annual averaging and trading of credits among refineries, and provides credits for early reductions. Also included are an extreme economic hardship provision and a special phase-in program for gasoline sold in certain western states.

Also, when faced with potential emergencies, EPA has worked closely with the Department of Energy to identify and pursue opportunities to temporarily increase energy supplies while protecting public health. To help avert electric power shortages, EPA has worked with states, utilities, regulators, and businesses to promote voluntary reductions of electricity use on peak energy use days. For example, because power outages usually occur during heat waves that cause "ozone alerts," EPA Regions have been prepared to incorporate public service

messages on reducing and shifting electricity demand into our existing public advisories about steps to reduce pollution.

EPA has also worked to improve flexibility in environmental regulations to achieve enhanced energy supply during emergencies in ways that maintain environmental protection. For example, in response to this summer's power shortages in California, EPA extended the federal permit flexibility that had already been given to emergency backup generators to allow them to operate in limited circumstances whenever possible to avert blackouts. Similarly, EPA is prepared to work this fall with Northeast states that wish to improve the flexibility of their regulations on the sulfur content of fuel oil, even though these state regulations have been in effect since the 1970's and are not the cause of potential fuel shortages this winter.

EPA will not stand in the way of allowing the energy sector to grow and change to match the dynamic needs of our economy. We are seeing major re-tooling of existing power plants (including the installation of new combined-cycle natural gas-fired turbines) and the proposed construction of many new greenfield plants. For example, New England currently has a capacity of about 25,000 megawatts, but there are about 31,000 megawatts of new capacity being proposed in New England. In the last three years alone, New England states and EPA have successfully issued air quality permits for 18 such plants.

The construction of these new, cleaner and competitive power plants in New England is a triple win for the environment, the energy sector, and the economy as a whole. The new plants will reduce dependence on older, dirtier and less reliable plants. The New England states have been issuing permits with tight emission limits, set at a tiny fraction of the emission rates from existing coal and oil plants: 1/200th the SO<sub>x</sub> emissions, 1/40th the NO<sub>x</sub> emissions, and 1/2 the CO<sub>2</sub> emissions.

Another example of permit assistance is the Alaska Permit-by-Rules Project. EPA Region 10 has been working with the State of Alaska and the oil and gas industry to streamline the air permitting processes for portable drill rigs in order to minimize the time it takes to get permits to drill or maintain wells in Alaska. This project is intended to create an innovative air permitting rule specifically applicable to portable equipment that will enhance the industry's ability to maintain the existing oil and gas production on the North Slope and other areas of Alaska.

EPA often acts proactively to avoid economic and energy disruptions. For example, just this past August, EPA signed an Administrative Order (AO) on Consent with Avista Corporation, relating to two natural gas and fuel oil turbines in Spokane, Washington. The AO was issued to allow Avista to operate in excess of permit limits for 30 days in order to supply electricity for the locally vital Bellingham Cold Storage (BCS) in Bellingham, Washington. Without the flexibility, this facility was faced with closing which would have reduced agricultural produce cold storage capacity in western Washington State by 40 percent.

We firmly believe that the Administration and Congress, acting together, can address current challenges to the energy sector of the economy, while maintaining public health protections. The Administration has proposed a number of initiatives over the years that may be worth a second look at this key time. Since 1993, the Congress has approved only 12 percent of the increases the President has proposed to develop clean, efficient sources of energy. Included in these proposals is comprehensive legislation to foster a new era of competition in the electricity industry. By allowing consumers all across our country to choose their own electricity supplier, we could enhance the reliability of electric power and save consumers nearly

\$20 billion a year in energy costs. Energy savings of that magnitude deserve renewed consideration.

In conclusion, whether it is spurring the ingenuity of American business, investing in cleaner technologies, providing the cleanest burning fuels and vehicles for our transportation needs, or helping American families reduce their energy bills, we firmly believe in the need to protect the environment while at the same time ensuring that environmental policies are consistent with economic progress and sound energy policy. We can and must do this working with Congress and the energy industry to ensure environmental protection and affordable energy supply to the citizens of this country.

Thank you. I would be happy to answer any questions that you may have.

4TH STORY of Level 1 printed in FULL format.

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May 13, 2001, Sunday, Late Edition - Final

SECTION: Section 1; Page 1; Column 6; National Desk

LENGTH: 1471 words

HEADLINE: ENERGY INDUSTRY RAISES PRODUCTION AT A RECORD PACE

BYLINE: By JOSEPH KAHN and JEFF GERTH

DATELINE: WASHINGTON, May 12

BODY:

The energy industry is drilling for natural gas, building gas pipelines and constructing power plants at an unprecedented pace as companies respond to high energy prices by significantly increasing investment.

The intense activity comes as President Bush prepares to unveil a national strategy to address what he has called an energy crisis. The policy is expected to emphasize streamlining of regulations, many of them intended to protect the environment, that Bush administration officials say have caused an alarming gap in energy supplies.

Vice President Dick Cheney, who leads the task force charged with drafting the energy plan, has cited a litany of statistics -- a shortage of refineries, power plants, natural gas pipelines and other energy resources and infrastructure -- to warn of a trend toward supply shortages. The solution, he says, is urgent government action.

But the latest statistics from government and industry analysts show the energy industry shifting into high gear, investing heavily in areas that were seen as unattractive just a few years ago.

Thus even before the government has eased any regulations, even as high energy prices create a sense of crisis in Washington, the investment boom promises a cyclical increase in supplies that is expected to stabilize or reduce prices in coming months, many industry executives and private analysts say.

"Prices go up and we start drilling," says Jerry Jordan, whose company in Columbus, Ohio, plans to dig 10 to 20 natural gas wells this year. Washington has a role to play, Mr. Jordan said, in opening restricted land for gas exploration down the road. For now, he says, there is plenty of natural gas available and "we're going to get it to the market."

Big oil companies plan to invest about \$41 billion to expand natural gas supplies this year, while new drilling rigs in operation have hit an all-time high of 955. That is indicative of what is going on broadly in the industry.

Power companies, reacting to high electricity prices in California and elsewhere, plan to add 90,000 megawatts of electricity generating capacity in the next 18 months, one industry estimate says. That is nearly one-fourth of what the Department of Energy says is needed to meet growth in demand through

The New York Times, May 13, 2001

2020.

Rising natural gas demand has prompted companies to build transportation pipelines at a frenzied pace. The federal Energy Information Administration says 1,895 miles of new pipelines were added last year. It expects companies to complete 4,300 miles this year and 4,650 miles next year, record increases in capacity.

President Bush said on Friday that gasoline prices were high because refineries, which administration officials said had been hobbled by environmental laws, could not increase output. "The reason why we have problems at the gas pump is that we have not built any more refineries," Mr. Bush said.

While some experts agree with Mr. Bush, others on Wall Street see it differently. Several investment analysts last week downgraded the stocks of leading refining companies because they have produced so much gasoline recently, possibly sending prices south by midsummer.

Mr. Bush and Mr. Cheney have often cited high prices as evidence that industry cannot meet demand because regulations make it too hard to increase supply. Industry officials have applauded the focus on streamlining regulations that they consider costly to comply with. But many acknowledge that those complaints have little to do with the price of gas today.

The reality of energy markets has gotten lost "in the politics of the moment," says Ken Cohen, vice president for public affairs of the Exxon Mobil Corporation in Irving, Tex. The company would like to see environmental regulations become more predictable, he said. "But the market isn't broken. If you let the markets work, the markets will clear," or meet demand.

Jay Hakes, who until recently was director of the Energy Information Administration in Washington, said that the recent surge in activity by energy companies shows that there is no chronic supply deficit.

The problem, Mr. Hakes said, is not that energy companies cannot respond to demand, but that newly deregulated energy companies, denied the certainty of earning a return on investments that state and federal regulators once provided, tend to respond all too rapidly.

Oil, gas, pipeline and utility companies shelved investment plans and shuttered operations when energy prices slumped in the 1990's. Demand growth accelerated by the late 1990's, prompting companies to embark on a fresh investment binge that is starting to close the gap today.

"Washington seems bereft of solutions to the real energy problem," Mr. Hakes said. "Deregulation cut the fat out of the system, and left people vulnerable to very volatile markets."

Mr. Hakes said that the government's toughest task is finding a way to buffer the swings between surplus and scarcity. He said such policies might use the Strategic Petroleum Reserve to reduce oil market gyrations. Another possible role for the government would be to offer refiners and electricity providers a tax incentive to build extra capacity that could come on line when supplies are short.

To date, the Bush administration has argued strongly against market intervention, especially when it comes to deregulated electricity and natural gas prices.

"My own view is that the great strength of the American economy is the extent to which we've sort of led the charge on deregulation," Mr. Cheney said in a recent interview. "Over time we'll have much sounder policy if we let the market work."

Yet while the Bush team rules out any action on prices, it treats supply shortages as a national emergency requiring prompt attention. It was a failure of government policy, especially the spread of environmental restrictions, that has left Americans vulnerable to what "Californians are experiencing now, or worse," Mr. Cheney said late last month.

Industry executives have been pressing for years to get relief from environmental laws -- most notably the Clean Air Act and land use restrictions. But such regulations are viewed by many executives as nuisances rather than as barriers to meeting demand.

Refineries have to satisfy dozens of fuel-grade standards that states set to meet federal pollution-control goals, impinging on economies of scale. Environmental laws and "Nimby" attitudes -- "not in my backyard" -- also make it difficult to build a new refinery, although no companies in recent years have tried to do so. But the bigger headache for the industry is fierce competition that keeps profit margins thin.

"Our margins are not wide enough to justify building new refineries. When we need to expand, we do it at existing sites," said Gene Edwards, senior vice president of Valero Energy of San Antonio, one of the nation's largest independent refiners. He said the company planned to add enough capacity at existing plants to increase its output of 750,000 barrels of gasoline a day by 90,000 barrels a day.

In natural gas, many Democrats agree with the Bush administration that some restricted land should be opened to exploration to increase reserves and tame prices, which spiked last year. But many in the industry say it was economics, not regulatory restraints, that led to the recent shortage.

Prices were so low in the 1990's that many companies left the business. Demand crept up as power plants began using natural gas, which burns relatively cleanly, to produce electricity. The industry has since struggled to fill orders, though the recent surge in drilling suggests it is catching up.

The long-term picture looks brighter, even without Washington's help. Late last year, as natural gas prices moved toward record highs, major producers on Alaska's North Slope -- BP Amoco, Exxon Mobil and Phillips Petroleum -- announced plans to build a multibillion-dollar pipeline to the lower 48 states. The companies control tens of trillions of cubic feet of natural gas in Alaska, but never tapped it because building a pipeline seemed foolhardy when prices were so low.

Electricity followed a similar trajectory. Generators in California and elsewhere did not build many power plants in the 1990's. Chris Seiple, who follows generating companies for RDI Consulting, in Boulder, Colo., attributes

The New York Times, May 13, 2001

that to a hangover from a 1980's building boom, and uncertainty surrounding deregulation.

With no incentives from Washington, power companies have responded readily to higher prices. They are now finishing work on power plants that will add 92,000 megawatts to the nation's capacity by next year, enough to power 90 million homes. That is more than they built in the last decade -- and enough that Mr. Seiple predicts a new bust will follow the current boom.

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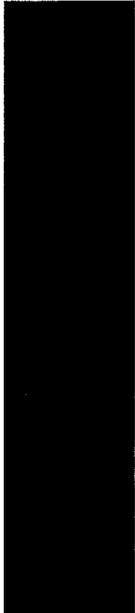
# Reliable, Affordable, and Environmentally Sound Energy for America's Future

Report of the  
National Energy Policy Development Group

*"America must have an energy policy that  
for the future, but meets the needs  
I believe we can develop our natural  
and protect our envi,*

— President George W. Bush

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This National Energy Policy document is also available as a [single PDF file](#) (2.5M).

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# America's Energy Infrastructure

## A Comprehensive Delivery System

One of the greatest energy challenges facing America is the need to use 21st-century technology to improve America's aging energy infrastructure. Americans need a comprehensive, long-term solution to deliver energy to industry and consumers in a reliable and safe manner.

Our energy infrastructure is comprised of many components, such as the physical network of pipes for oil and natural gas, electricity transmission lines and other means for transporting energy to consumers. This infrastructure also includes facilities that turn raw natural resources into useful energy products. The rail network, truck lines, and marine transportation are also key components of America's energy infrastructure.

The energy industry has undergone major changes in the last two decades, and more are expected. These changes affect how our energy infrastructure operates. For example, while the electricity industry was once vertically integrated, it is increasingly separated into three isolated segments: generation, transmission, and distribution.

Our energy infrastructure has failed to keep pace with the changing requirements of our energy system. Domestic refining capacity has not matched increases in demand, requiring the United States to import refined products. Natural gas pipelines have not expanded sufficiently to meet demand. The electricity transmission system is constrained by insufficient capacity. Rail capacity was significantly increased during the 1970s when rail facilities were improved to move more coal. Since then, however, few additions to the coal transportation rail network have been built.

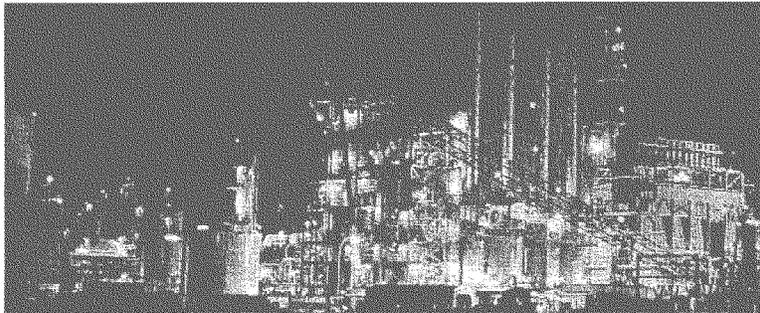
The United States needs to modernize its energy infrastructure. One sign of a lack of an energy policy in recent years has been the failure to maintain the infrastructure needed to move energy where it is needed most.

### Electricity

The electricity infrastructure includes a nationwide power grid of long-distance transmission lines that move electricity from region to region, as well as the local distribution lines that carry electricity to homes and businesses. Electricity originates at power plants, which are primarily fueled by coal, nuclear, natural gas, water and, to a lesser extent, oil. Coal, natural gas and oil powered plants require a dependable transportation infrastructure to deliver the fuels necessary for the production of electricity. A transportation network for waste disposal is also necessary for power plants that create by-products.

### Restructuring

The electricity industry has undergone considerable changes in the last two decades. These changes affect how our electricity infrastructure operates. Major industry restructuring has separated once vertically integrated electric utilities that supplied generation, transmission, and distribution services into distinct entities. To facilitate competition at the wholesale level, in 1996, the Federal Energy Regulatory Commission (FERC) required transmission-owning utilities to "unbundle" their transmission and power marketing functions, and provide nondiscriminatory, open access to their transmission systems by other utilities



*U.S. demand for refined petroleum products currently exceeds its domestic capacity to produce them. The refinery industry is now running at nearly 100 percent of capacity during the peak gasoline consumption season.*

#### **Oil Refineries**

U.S. demand for refined petroleum products, such as gasoline and heating oil, currently exceeds our domestic capacity to produce them. The refinery industry is now running at nearly 100 percent of capacity during the peak gasoline consumption season and is producing record levels of needed products at other times. The excess demand has recently been met by increased imports.

The U.S. refining industry has experienced a decade of low profitability and rates of return on investment. This has discouraged investment in new refineries. In fact, almost 50 U.S. refineries closed over the last ten years, and no major refineries have been built in the last twenty-five years.

During the last ten years, overall refining capacity grew by about 1 to 2 percent a year as a result of expansion in the capacity of existing, larger refineries. Although there was a significant, sustained improvement in margins during 2000, those gains arose out of a very tight supply situation and high, volatile prices. Industry consolidation has been a key response to this poor profitability.

The U.S. refining industry is also facing major infrastructure problems. While the industry expanded steadily through the 1970s, it went through a period of consolidation after the oil shocks of 1973 and 1978.

Ongoing industry consolidation, in an effort to improve profitability, inevitably leads to the sale or closure of redundant facilities by the new combined ownership. This has been particularly true of terminal facilities, which can lead to reductions in inventory and system flexibility. While excess capacity may have deterred some new capacity investments in the past, more recently, other factors, such as regulations, have deterred investments.

Refiners are subject to significant environmental regulation and face several new clean air requirements over the next decade. Refiners will face many clean fuel production standards, which require the production of many different kinds of gasoline and diesel fuel for different parts of the country. New Environmental Protection Agency rules will require refiners to produce gasoline and diesel fuel with significantly lower sulfur content. New clean air requirements will benefit the environment, but will also require substantial capital investments and additional government permits. The proliferation of distinct regional and state gasoline and diesel product standards, the significant permitting needed, and the downtime to make the needed physical and operational changes will challenge refiners and governments to effectively coordinate in order to reduce the likelihood of supply shortfalls and price spikes.

**Recommendation:**

★ The NEPD Group recommends that the President direct the Administrator of the EPA to study opportunities to maintain or improve the environmental benefits of state and local "boutique" clean fuel programs while exploring ways to increase the flexibility of the fuels distribution infrastructure, improve fungibility, and provide added gasoline market liquidity. In concluding this study, the Administrator shall consult with the Departments of Energy and Agriculture, and other agencies as needed.

Since 1990, refiners have met growing demand by increasing the use of existing equipment and increasing the efficiency and capacity of existing plants. Even with these efforts, however, refining capacity has begun to lag behind peak summer demand. Price volatility and the cyclical nature of oil markets inhibit investment in supply infrastructure. While investors can withstand market fluctuations for some commodities, large investments in oil exploration and development—such as for drilling required to maintain a steady supply and the pipelines needed to bring supply to market—are often curtailed during times of low oil prices. The outcome of this lack of steady investment is less supply, higher prices, and the abandonment of marginal oil resources that may never be recovered.

**Recommendations:**

★ The NEPD Group recommends that the President direct the Administrator of the Environmental Protection Agency and the Secretary of Energy to take steps to ensure America has adequate refining capacity to meet the needs of consumers.

- Provide more regulatory certainty to refinery owners and streamline the permitting process where possible to ensure that regulatory overlap is limited.
- Adopt comprehensive regulations

(covering more than one pollutant and requirement) and consider the rules' cumulative impacts and benefits.

★ The NEPD Group recommends that the President to direct the Administrator of the Environmental Protection Agency, in consultation with the Secretary of Energy and other relevant agencies, to review New Source Review regulations, including administrative interpretation and implementation, and report to the President within 90 days on the impact of the regulations on investment in new utility and refinery generation capacity, energy efficiency, and environmental protection.

- The NEPD Group recommends that the President direct the Attorney General to review existing enforcement actions regarding New Source Review to ensure that the enforcement actions are consistent with the Clean Air Act and its regulations.

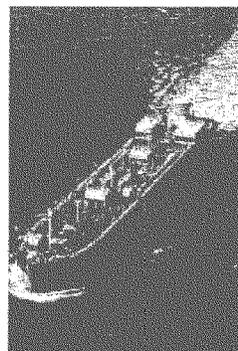
**Energy Transportation Infrastructure**

The infrastructure used to transport energy products includes ocean tankers; inland barges; specialized trucks for oil and refined products, such as gasoline and heating oil; railroad tank cars and coal cars; and the waterways, highways, and railroads upon which they travel. There is also a substantial inventory of river and oceanside port facilities that are used for moving energy materials.

**Marine Transportation**

Marine transportation of oil and refined products accounts for nearly one-third of domestic shipments. Approximately 3.3 billion barrels of oil and petroleum products and 229 million short tons of coal move through the nation's ports and waterways every year.

There are three kinds of ship transports of domestic energy products. Tankers



*Double-hulled tank barges provide distribution of petroleum products.*

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BOB SLAUGHTER  
General Counsel &  
Director of Public Policy

October 23, 2000

Honorable Henry Waxman  
Ranking Minority Member  
Committee on Government Reform  
U.S. House of Representatives  
Washington, D.C. 20515-6143

Dear Congressman Waxman:

Enclosed are NPRA's answers to questions you raised following the Government Reform Committee hearing on September 20, 2000.

As you know, making reasonably-priced energy supplies available to its customers, is the highest priority of the U.S. refining industry. As a consequence, the domestic refining industry continues to be very concerned about EPA's upcoming diesel sulfur rule and the impact it will have on future diesel supplies.

I also bring to your attention a recent Los Angeles Times article discussing the potential for gasoline shortfalls in California within the next three to four years.

Please contact me if I can supply any additional information.

Sincerely,

cc Chairman Dan Burton

Response to Questions 1 and 2:

**U.S. REFINING ACTIVITY**  
January - July 2000  
(million barrels)

	<b>Production</b>	<b>Exports</b>
Gasoline	1,681	23
Diesel	507	7
Heating Oil	223	24

SOURCE: Energy Information Administration,  
Petroleum Supply Monthly, September 2000,  
p. 37

Response to Questions 3.A. and B.:

NPRA agrees with EIA's statement. NPRA also agrees with Mr. Simon's statement on recent refinery capacity utilization rates.

**U.S. REFINING ACTIVITY**

<b>Month</b>	<b>Average Capacity Utilization (%)</b>
May 2000	94.7
June 2000	96.2
July 2000	96.9
<b>Four-week Period Ending</b>	
8/25/00	95.5
9/29/00	94.8

SOURCE: Energy Information Administration,  
Weekly Petroleum Status Report,  
DOE/EIA-0208(2000-40), p. 4.

The petroleum industry is confronted with many environmental challenges. However, resources are limited and the costs of upcoming regulatory initiatives are high. The U.S. domestic refining industry will be challenged to meet increasing domestic petroleum product demands with substantial changes in fuel quality specifications without major upsets in supply or price. The timing and size of the necessary refining capital investments to reduce sulfur in gasoline and diesel, replace MTBE use in gasoline and to change gasoline specifications to reduce toxic emissions from motor vehicles are unprecedented.

High capacity utilization rates at U.S. refineries, increasing petroleum product demand for transportation, and addressing multiple fuel design issues simultaneously raise supply concerns. It is not evident that this long-term high utilization rate can be sustained without short-term supply disruptions. Furthermore, capacity expansions at existing domestic refineries may not materialize if stringent new fuel composition standards draw capital and/or discourage investment.

New restrictive petroleum product standards will be addressed by individual companies. Some may choose not to invest. Others may invest in capacity additions as part of a coordinated, optimized improvement program. These independent decisions and local circumstances may result in the potential for short-term supply disruptions and accompanying price volatility, particularly during the initial implementation of new standards. Furthermore, tighter fuel specifications could reduce the refining industry's ability to continue reliable product deliverability because of a loss of facility flexibility to respond to market signals on short notice.

In general, American refineries have evolved over time. Each refinery is a unique configuration of complex facilities producing a number of products. This results in a range of operating and market factors. Furthermore, refineries must schedule turnarounds to perform necessary maintenance; units need to be shut down to do work that would be infeasible or hazardous if the unit was still running. At times, shutdowns are required by law or code to conduct pressure vessel/boiler inspections. Therefore, the development of a credible estimate of an "optimal" average refinery utilization rate is not possible.

The refining industry is committed to providing cleaner, more environmentally acceptable products to consumers. However, further environmental progress should not leave American consumers a legacy of scarce and costly energy supplies.

Response to Question 3.C.:

Because local air quality conditions vary, NPRA does not support the establishment of a single performance standard for gasoline or diesel throughout the U.S.

**Response to Question 4:**

Clean Air Act § 202(a)(3)(C) states that promulgated or revised standards shall not be effective in less than four years after promulgation. EPA has proposed new emissions standards for heavy-duty diesel engines beginning in MY2007. EPA is rushing to finalize this rule in December 2000; this is much sooner than the statutory minimum four year leadtime. EPA should take the next year to develop a more solid foundation for its rule by paying closer attention to the (physical and technical) capabilities of the refining industry. As you know, the industry is severely stressed to meet demand under current fuel specifications. As we made clear in our testimony, NPRA does not oppose a new emissions standard for heavy-duty diesel engines. In fact, NPRA supports a 90 percent reduction in the current sulfur content of diesel fuel. A new rule that would comply with the statutory minimum four year leadtime should be promulgated in early 2002. Therefore, EPA is clearly rushing this proposal at considerable risk to our ability to provide adequate supplies of highway diesel to consumers.

The screenshot shows a news article from the Los Angeles Times website. At the top, there are advertisements for 'latimes.com' and 'travelscape.com'. Below the ads, the article title 'State Barreling Ahead Toward a Fuel Shortage' is prominently displayed. The author is identified as Chris Kraul. The article text discusses the delicate balance of supply and demand for gasoline in California, the impact of a 10% shortfall when cleaner-burning gasoline is mandated in 2003, and the potential for higher and more volatile prices. It also mentions that California is entering a gasoline crisis and that the state's 26 refineries have been shut down in response to tighter environmental laws.

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Sunday, October 15, 2000 | [Print this story](#)

## State Barreling Ahead Toward a Fuel Shortage

Energy: Delicate balance of supply and demand may shift to a 10% shortfall when cleaner-burning gasoline is mandated in 2003.

By CHRIS KRAUL, Times Staff Writer

California is entering a gasoline crisis that in the next two years could sharply drive up prices, as output from the state's refineries is scaled back and economic growth boosts demand.

To avert fuel shortages will require new refining capacity for the special environmental blend of gasoline mandated by state law, but the required investments are not currently being planned--and the likelihood is slim that they will be.

Almost overnight, California could go from its current precarious balance between supply and demand to at least a 10% shortfall when new state laws will require even more environmentally friendly formulations in 2003. Prices could reach as high as \$3 a gallon under one worst-case scenario.

Relying on oil imports--if they are available--to make up the difference in future shortages would mean higher and more volatile gasoline prices, state officials and outside analysts agree. That would put the state in about the same position it found itself in during this summer's electricity crunch.

"There's a bomb coming," said Leslie Watson, a Long Beach-based energy consultant. Although gasoline prices are subject mainly to fluctuations in crude oil prices, "we could be paying a lot more for gasoline."

Just since 1996, half the state's 26 refineries have shut down in response to tighter environmental laws. And as even tougher regulations take effect, refiners are electing to defer investments to meet future demand.

The sum of the California Legislature's response to the problem in its recently adjourned session was two laws that authorized studies about the feasibility

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of establishing a gasoline pipeline from Texas and a state gasoline reserve.

Meanwhile, crude prices are not helping the outlook. Oil is hovering near \$35 a barrel--or three times the levels seen at the end of 1998--amid predictions that the global outlook for the crude market is deteriorating.

#### Still No Sense of Urgency

Beyond the two feasibility studies, and red flags raised by the state attorney general's office and the California Energy Commission, there seems to be little sense of urgency. That's understandable, given the difficulty in predicting energy markets even a few months in the future, let alone more than two years, when market forces are expected to come to a head.

At the same time, there are no obvious near-term solutions, given the almost certain impossibility of building new refineries in the state and the fact that the few outside sources of California's cleaner-burning blend are themselves projecting new demands--and thus higher prices--for their products.

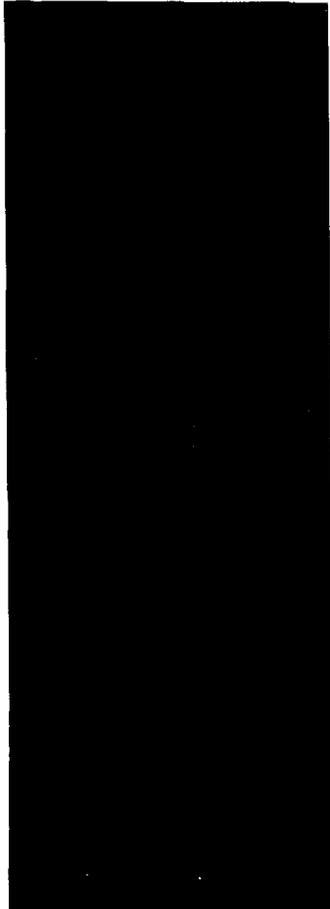
Opinions vary not about whether gasoline prices will rise in coming years but by how much. Oil economist Philip K. Verleger of Newport Beach, a pessimistic but prescient market observer, worries that Californians will be paying \$3 for a gallon of gasoline--at least on occasion--by 2003.

"It's very daunting," he said.

What worries Verleger is that, just about the time that gasoline retailers here will seek more imports from Texas--one of the few places that make the cleaner blend approved by the California Air Resources Board--that state will begin revamping its refineries to meet tougher pollution guidelines of its own. That, plus rising demand for Texas gasoline in other states, could ignite price competition.

Less apocalyptic but worried nonetheless is analyst Watson of energy consultants Purvin & Gertz, who said shrinking in-state gasoline supplies combined with steadily growing consumption by California motorists will make the extreme price spikes seen here in the last two years a more common occurrence.

The oncoming gasoline crunch is a consequence of tighter environmental laws that not only have reduced air pollution but also have forced a dozen of the state's refiners out of business in the last five years. It also stems from the not-in-my-backyard



attitude that makes building ugly, polluting refineries especially difficult in California.

Prices will rise because gasoline supplies in the state will fall, mainly because of the ban on methyl tertiary butyl ether (MTBE), an additive that helps gasoline burn more cleanly but contaminates ground water. When it takes effect in January 2003, the ban will in one stroke cut 11% from state supplies because that's how much gasoline the additive accounts for by volume.

In addition, new state clean-air requirements that take effect at the same time will cause slight reductions in refinery output unless owners spend hundreds of millions of dollars for new equipment.

**170,000-Barrel Daily Shortfall Possible**

Those factors, combined with an expected 6% growth in consumption by 2003, could lead to a 17% market "imbalance" compared to current conditions--or a shortfall of about 170,000 barrels of the expected 1 million a day California will need, state officials say. Only about one-third of those barrels, each containing 42 gallons, can be replaced by increased in-state refinery output, according to current estimates.

The resulting 10% shortfall of in-state gasoline production and possible price spikes were foreseen by official studies, which predicted that the clean-air provisions of the air resources board's so-called Phase 3 rules would add 2 cents to 6 cents per gallon to the cost of producing gasoline.

But analysts now say higher levels of imports will cause more shock at the pump than originally thought, judging from the severe wholesale price spikes of as much as 50 cents per gallon above U.S. averages seen here in the last couple of years, whenever refineries were shut down by accidents or maintenance and imports were turned on a temporary basis.

State gasoline production, currently averaging about 950,000 barrels a day, is just enough to meet demand. But supplies will fall out of balance with demand by January 2003, when the only permissible gasoline for the state must meet CARB's Phase 3 specifications for less sulfur, which contributes to smog, and benzene, a carcinogen. The measures will result in a daily reduction of 2%, or 19 tons, in emissions on California roadways, continuing the state's decades-long efforts to clean the air.

The resulting 10% shortfall may be comparable

to the electricity generation shortage the state is now suffering. California's dependence on imports for 20% of its electric power helped send wholesale prices skyrocketing last summer. Only rate caps imposed on utilities by the state are saving consumers and businesses from sticker shock at having to pay twice or even three times what they paid a year ago.

As usual, California is at the forefront of environmental measures, and other states are expected to follow its lead. The new rules mean there will be less pollution, and many residents are relieved by the ban on MTBE, an insidious contaminant found in drinking water whose effects still are being studied.

But environmentalism carries a cost to refiners that some are unwilling or unable to shoulder. In 1996, half the state's 26 refineries closed rather than spend the average \$400 million necessary to conform to the so-called CARB 2 clean-fuel requirements, the precursor to CARB 3 rules.

The environmental benefits of CARB 3 gasoline are abundant, said Gordon Schremp, an analyst for the Energy Commission. "But consumers ought to be prepared for the cost of all this."

So far this year, California motorists have resigned themselves to 40% price hikes at the pump. Indeed, residents have been buying as much gasoline as ever, with consumption up about 2% this year, the Energy Commission said, roughly in line with population growth.

"We drive. It's a basic fact of life in California," said Barry Pulliam, a petroleum economist at Econ One Research Inc. in Los Angeles. "Some people could compare a gallon of gasoline with a bottle of Evian water and say it's cheaper."

The enormous environmental and financial obstacles that new refinery projects face make it highly unlikely that California would regain refining self-sufficiency any time soon. The state's 13 refineries already are operating at 100% or more of their designed capacities. Currently, only Ultramar Diamond Shamrock is known to be planning expansions, with improvements at its Wilmington and Concord refineries expected to fill 60,000 barrels of the projected 170,000-barrel daily shortfall.

The best chance for adding significant gasoline production in the state is through reactivating one of several refineries that have been mothballed since

1996. The biggest is the Powerline facility in Santa Fe Springs, whose owner, CENCO Refining Co., wants to restart operations. But CENCO faces significant environmental hurdles and stiff local opposition.

All of which means the state probably will have to turn to outside sources for 10% of its gasoline. The sources are limited to three refineries capable of brewing California's CARB 3 blend: in Corpus Christi, Texas; the U.S. Virgin Islands; and Finland.

Shipments of gasoline from those refineries via ocean tankers will incur transportation costs that will tack on an average of 8 cents to 12 cents to the price of a gallon of gas. But the real price pressures will come from market imbalances that will pit more and more importing states against each other for increasingly scarce product.

California Atty. Gen. Bill Lockyer, who is investigating oil company practices and their effects on the state's stressed-out gasoline market, was so alarmed that he sponsored Assembly Bill 2098 to fund a feasibility study of a pipeline link from the Texas Gulf Coast. Gov. Gray Davis signed the bill last week, as well as AB 2076, which requires the Energy Commission to examine the feasibility of operating a state strategic fuel reserve.

A critical segment of the proposed pipeline, owned by Dallas-based Longhorn Partners, is complete but inoperative because of litigation and environmental challenges. If and when gasoline begins pumping, the pipeline could facilitate delivery of enough fuel to Arizona to free up at least 15,000 barrels a day that California refineries now send to the Phoenix-Tucson area.

Economist Verleger, who correctly foresaw crude oil prices rising to nearly \$40 a barrel this year, warned that, even with such a pipeline operational, there may not be enough gasoline to ship here from Texas in coming years because many refineries there are shutting down to retool to meet stricter clean-fuel requirements.

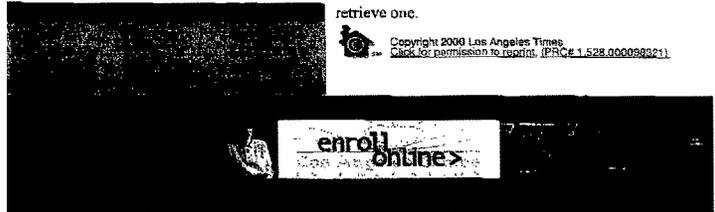
"This will take much of Texas out as a source of gasoline for California," he said, "so it's going to be real tight."

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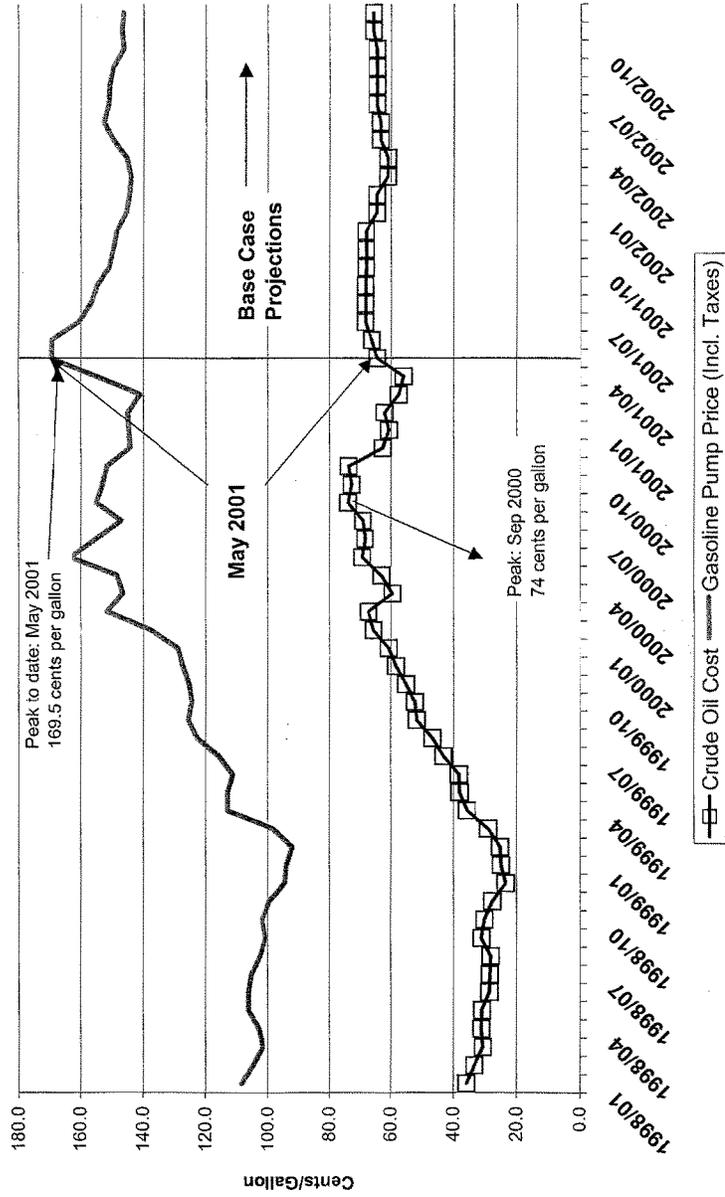
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Crude Oil Cost and Gasoline Price  
(From EIA's June 2001 Short-term Energy Outlook)



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WM. LACY CLAY, MISSOURI

BERNARD SANDERS, VERMONT,  
INDEPENDENT

The Honorable Doug Ose  
Chairman  
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs  
Committee on Government Reform  
B377 Rayburn HOB  
Washington, DC 20515

Dear Chairman Ose:

I am writing to share with you a pertinent report on gasoline supply that was released on the same day as the subcommittee's hearing on this issue. Senator Ron Wyden's June 14, 2001, report entitled "The Oil Industry, Gas Supply and Refinery Capacity: More Than Meets the Eye" and related oil industry documents, both of which I have attached, suggest that major oil companies, including Chevron, Texaco, Mobil, Marathon Ashland, and ARCO, may have taken part in an effort to tighten gasoline supply in order to raise retail prices.

At that subcommittee's hearing, I mentioned some evidence indicating that the failure to adequately expand our domestic refining capacity was the result of business decisions on the part of the refining industry -- not environmental regulations. For instance:

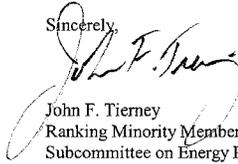
- The *New York Times* reported on May 13, 2001, that, quote, "[environmental] regulations are viewed by many executives as nuisances rather than as barriers to meeting demand. . . . But the bigger headache for industry is the fierce competition that keeps profit margins thin. 'Our margins are not wide enough to justify building new refineries.' . . . said Gene Edwards, senior vice president of Valero Energy of San Antonio, one of the nation's largest independent refiners."
- Over the last twenty five years, the industry has not applied for any permits to build new refineries.
- Fifty refineries were closed in the last ten years.
- For the last year and a half, refineries have experienced record profits while consumers paid high prices at the pump. Between 1999 and 2000, profits for the top ten petroleum refining companies, on average, doubled.
- The Federal Trade Commission (FTC) found that one company -- later identified as Marathon Ashland, which represents about 5% of our national refining capacity -- withheld supplies of reformulated gasoline that it had already produced in order to sustain

high retail gasoline prices in the Midwest last Spring and this action contributed to retail price spikes. On June 11, 2001, the *Wall Street Journal* reported that "the steep prices substantially boosted profits for Marathon Ashland" and its after-tax refining and marketing profit were "more than double from the year before."

And, now, Senator Wyden has released a report and oil industry documents indicating that, five years ago, when we should have been increasing our refining capacity to meet today's demand, refineries wanted to restrict gasoline supplies in order to maximize profits.

I wanted to be sure you were aware of this important report and documents and ask that you include them in the June 14, 2001, hearing record.

Sincerely,



John F. Tierney  
Ranking Minority Member  
Subcommittee on Energy Policy, Natural Resources  
and Regulatory Affairs

cc members of the subcommittee  
attachment

## The Oil Industry, Gas Supply and Refinery Capacity: More Than Meets the Eye

An investigative report presented  
by Senator Ron Wyden  
June 14, 2001

*"As observed over the last few years and as projected well 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. Supply significantly exceeds demand year-round. This results in very poor refinery margins, and very poor refinery financial results. Significant events need to occur to assist in reducing supplies and/or increasing the demand for gasoline."*

Internal Texaco document, March 7, 1996

*"A senior energy analyst at the recent API (American Petroleum Institute) convention warned that if the U.S. petroleum industry doesn't reduce its refining capacity, it will never see any substantial increase in refining margins...However, refining utilization has been rising, sustaining high levels of operations, thereby keeping prices low."*

Internal Chevron document, November 30, 1995

America is indeed facing an energy crunch. For much of the year, gas prices have soared and supply has trailed demand.

During the course of my ongoing investigation into potential anti-competitive and anti-consumer practices by the oil industry, I have obtained documents that raise serious questions about the circumstances leading to limited gas supply and high prices.

The oil industry and its allies would have the public believe that insufficient refining capacity, restrictive environmental standards, growing gasoline demand and OPEC production cutbacks are the primary reasons for the current oil and gas supply problem.

However, the record shows – supported by documents I have obtained – that there is more to the story. Specifically, the documents suggest that major oil companies pursued efforts to curtail refinery capacity as a strategy for improving profit margins; that competing oil companies worked together to subvert supply; that refinery closures inhibited supply; and that oil companies are reaping record profits, yet may benefit from a proposed national energy policy that would offer financial incentives to expand refinery capacity.

For the last several months limited domestic refinery capacity has taken center stage as the purported reason for insufficient domestic gasoline supply and higher prices.

In the mid-1990s too much refining capacity, not too little, concerned the nation's major oil companies. At that time, the oil and gas industry faced what they termed "excess refining capacity," a circumstance they viewed as a financial liability that drove down overall profit margins. The industry reduced the total amount of potential supply by closing down more than 50 refineries in the past decade. Since 1995 alone, 24 refinery closings have taken nearly 830,000 barrels of oil per day.

In September 1999, I released a report looking into the anti-competitive practices of zone pricing and redlining by West Coast oil companies. At the time of the 1999 investigation, industry officials explained higher gas prices as the result of refinery fires in California and worldwide production cuts spurred by OPEC. They did not blame inadequate domestic refining capacity as the culprit for restricted supply or high prices.

Today, the nation's major oil companies are experiencing record profits, thanks in no small part to higher prices at the pump. Despite the across-the-board financial gains of the industry, the Bush administration's recently released National Energy Policy seeks to provide incentives, perhaps including relaxed environmental regulations, to quickly boost refining capacity.

Information I have received during my ongoing investigation raises serious concerns that the nation's major oil suppliers have set out in a strategic effort to orchestrate a financial triple play, a coordinated effort that would reduce supply, raise prices at the pump and relax environmental regulations. Unfortunately, in each case, it is the consumer who takes the hit.

While the documents target activity on the West Coast and refinery closings in 11 states, they point to practices with significant national ramifications. The companies involved are national companies that operate in multiple states. In addition, gas and oil is a fungible commodity and the amount of capacity that has been taken offline is significant enough to affect national markets.

The following information reflects what I have found to date during the course of my investigation.

**FINDING 1:  
Oil Companies Articulated their "Need" to Reduce Oil and Gas Supply to Increase Prices and Grow Profit Margins**

Facing what they deemed inadequate profit margins in the mid-1990's, oil companies readily recognized that the surest way to drive up profits was to drive down oil and gasoline supply. By restricting supply, they would be able to demand higher prices and reap higher margins for their product. Oil company documents raise questions as to whether this mindset was the underpinning of a strategic business approach in which the industry willfully engaged to control gas supply.

Internal oil company documents reveal that in 1995 and 1996 competitor companies strategized about opportunities to tighten product supply as a means of increasing profit margins.

A “Competitor Intelligence Report” from Chevron dated November 30, 1995 states:

“A senior energy analyst at the recent API (American Petroleum Institute) convention warned that if the U.S. petroleum industry doesn’t reduce its refining capacity, it will never see any substantial increase in refining margins...However, refining utilization has been rising, sustaining high levels of operations, thereby keeping prices low.”<sup>1</sup>

This concern over too-ample supply driving down profits was echoed in a Texaco document dated March 7, 1996:

“As observed over the last few years and as projected well 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. Supply significantly exceeds demand year-round. This results in very poor refinery margins, and very poor refinery financial results. Significant events need to occur to assist in reducing supplies and/or increasing the demand for gasoline.”<sup>2</sup>

Not only did the oil companies view excess refining capacity as a financial liability, they openly suggested that eliminating the excess capacity and tightening supply would help improve their bottom line.

These documents show that oil companies had the intent and motive to hamstring supply and reduce refining capacity. Subsequent events show that they acted.

**FINDING 2:  
Oil Company Competitors Planned Opportunities to Subvert Oil and Gas Supply**

On June 11, 2001, the *Wall Street Journal* reported that Marathon Ashland Petroleum intentionally withheld reformulated gasoline supply in the Midwest in a contrived effort to keep prices, and profits, artificially high.<sup>3</sup> Although Marathon was reported to have operated alone in this instance, documents suggest that over the past five years other leading oil companies have worked together to control the amount of gasoline available on the market.

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<sup>1</sup> Chevron document – Competitor Intelligence Information, November 30, 1995

<sup>2</sup> Texaco memo - Future Gasoline Specifications, March 7, 1996

<sup>3</sup> Wall Street Journal Article, Marathon Ashland Withheld Gasoline, June 11, 2001

A thankyou note dated April 25, 1994, from Tosco CEO Thomas O'Malley to ARCO Executive Vice President James Middleton raises serious questions about how the two companies worked together to control gasoline supply in a manner financially beneficial to both companies:

“ARCO represents an important part of Tosco's business. We want to do everything we can to nurture this important business relationship and make sure it keeps up the tradition of being mutually beneficial.”<sup>4</sup>

By highlighting the mutually beneficial “tradition” in which these two competitors engaged, the note points to intentional cooperation to improve their respective bottom lines.

During the mid-1990s California, facing severe air quality problems, transitioned to cleaner-burning, reformulated gasoline referred to as CARB (California Air Resources Board) gas. Because this formulation of gasoline was only required in California, fewer suppliers produced the fuel; those who did could play a significant role in setting the price. Documents obtained by my office indicate that several West Coast refiners and suppliers sought cooperative arrangements through which they could keep the supply of CARB gas tight and demand higher prices as a result.

The President of ARCO Products Company William Rusnack admitted in a deposition taken May 15, 1997, that he met with Tosco CEO Thomas O'Malley to discuss opportunities to work together to control supply of the cleaner burning gasoline, thus propping up the overall price.

“... explore whether or not there was any mutual benefit, any mutual interest, any profit for both ARCO and Tosco to find a way to have ARCO purchase or Tosco sell CARB [cleaner burning California Air Resources Board] gasoline to ARCO, recognizing that the agreement that was in place at that time did not provide for the supply of CARB gasoline.”<sup>5</sup>

Cecil Blackwell, a senior Chevron official, described during a deposition a conversation he had with Jay Kowal, a senior ARCO official, in which they discussed possible agreements affecting supply.

“And he, as I recall, confirmed their interest ...and if we can reach a commercial agreement with them, that he felt, you know, this could change some of their investment decisions or change investment decisions of others on supplying CARB gasoline.”<sup>6</sup>

<sup>4</sup>Thank you note to ARCO Exec. VP James A. Middleton from Tosco CEO Thomas O'Malley, April 25, 1994

<sup>5</sup>Summary of Deposition of William C. Rusnack, President of ARCO Products Co., taken May 15, 1997

<sup>6</sup> Summary of Deposition of Cecil Blackwell, Senior Chevron Official, taken February 19, 1997

Based on information obtained during this and other depositions related to a court case currently before the California Supreme Court, the plaintiff's attorney compiled an index that documents face to face meetings between top competitors in the West Coast oil industry. These meetings between ARCO and Tosco, ARCO and Exxon, ARCO and Chevron, Chevron and Tosco, etc., expose efforts among the companies to reach agreements to control the supply of oil and gas in the West.

Documents obtained as part of the legal proceeding also verify that major oil and gas companies supplying CARB gas to the California market entered into 44 supply-sharing agreements. These agreements were generated to control the quantity of CARB gas on the market, reduce efforts to expand CARB refining capacity, limit imports of CARB gas and discourage excess CARB gas from being sold on the spot market to independent purchasers. Exxon, ARCO, Chevron, Shell, Texaco, Tosco and Unocal all entered into such supply-sharing agreements with at least one of their competitors.

Because such agreements benefited the major suppliers and excluded independent operations from the process, significant questions are raised about whether these agreements had the effect of forcing independent refiners to close down – further decreasing overall gasoline supply.

In February 1993, Mobil, Texaco and Chevron (with the financial support of Exxon) filed a lawsuit to overturn the small refiners' exemption to the CARB gas program, reducing the ability of small refiners to compete in the CARB gas market.

An internal Mobil document highlighted the connection between an independent refiner producing CARB gas, the depressed price that would result, and the need to prevent the independent refiner from producing.

“If Powerine re-starts and gets the small refiner exemption, I believe the CARB market premium will be impacted. Could be as much as 2-3 cpg (cents per gallon)...The re-start of Powerine, which results in 20-25 TBD (thousand barrels per day) of gasoline supply...could...effectively set the CARB premium a couple of cpg lower...Needless to say, we would all like to see Powerine stay down. Full court press is warranted in this case.”<sup>7</sup>

The Powerine Oil Company refinery closed in 1995. Despite documented attempts to work in conjunction with major oil companies to restart the Santa Fe Springs, Calif. refinery<sup>8</sup>, the major oil companies stood in the way and the refinery remains closed.

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<sup>7</sup> Internal Mobil Corp. E-mail regarding Powerine refinery, February 6, 1996

<sup>8</sup> Powerine Oil Co. Letter to Mr. M.R. Diaz, General Manager of Supply & Distribution for Texaco Refining & Marketing Inc.

**FINDING 3:  
Closing Refineries: Oil Companies Act to Inhibit Supply**

While oil companies were making agreements to control oil and gas supply, refineries were closing. Since 1995, 24 refineries have closed, including refineries in California, Illinois, Arizona, Oklahoma, Indiana, Kansas, Louisiana, Texas, Mississippi, Michigan and Washington (the Tosco refinery has subsequently reopened), taking nearly 830,000 barrels a day of refining capacity offline. While capacity at some existing refineries expanded during this time, the fact is that more capacity would exist if these refineries were still operating.

According to Energy Information Administration, the following refineries were shut down between 1995 and 2001:

<u>Year</u>	<u>Refinery</u>	<u>Location</u>
1995 <sup>9</sup>	Indian Refining	Lawrenceville, IL
	Cyril Petrochemical Corp.	Cyril, OK
	Powerine Oil Co.	Sante Fe Springs, CA
	Sunland Refining Corp.	Bakersfield, CA
	Caribbean Petroleum Corp.	San Juan, Puerto Rico
1996 <sup>10</sup>	Tosco	Marcus Hook, PA
	Barrett Refg. Corp.	Custer, OK
	Laketon Refg.	Laketon, IN
	Total Petroleum, Inc.	Arkansas City, KS
	Arcadia Refg. & Mktg.	Lisbon, LA
	Barrett Refg. Corp.	Vicksburg, MS
	Intermountain Refg. Co.	Fredonia, AZ
1997 <sup>11</sup>	Gold Line Refg. LTD	Lake Charles, LA
	Canal Refg. Co.	Curch Point, LA
	Pacific Refg. Co.	Hercules, CA
1998 <sup>12</sup>	Gold Line Refining Ltd.	Jennings, LA
	Petrolite Corp.	Kilgore, TX
	Shell Oil Co.	Odessa, TX
	Pride Refg. Inc.	Abilene, TX
	Sound Refg. Inc.	Tacoma, WA

<sup>9</sup> Energy Information Administration/Petroleum Supply Annual 1995, volume 1, p. 80

<sup>10</sup> Energy Information Administration/Petroleum Supply Annual 1996, volume 1, p. 119

<sup>11</sup> Energy Information Administration/Petroleum Supply Annual 1997, volume 1, p. 80

<sup>12</sup> Energy Information Administration/Petroleum Supply Annual 1998, volume 1, p. 119

<u>Year</u>	<u>Refinery</u>	<u>Location</u>
1999 <sup>13</sup>	TPI Petro. Inc.	Alma, MI
2000 <sup>14</sup>	Pennzoil Berry Petroleum Chevron	Rouseville, PA Stephens, Ark. Richmond Beach, WA
2001 <sup>15</sup>	Premcor	Blue Island, IL

These refinery closures took more than 830,000 barrels per day of refinery capacity out of production.

**Refinery Capacity Lost Due to Refinery Closures Between 1995 - 2001**

*< Numbers in Barrels per Calendar Day >*

1995	191,750 bbl/cd <sup>16</sup>
1996	268,750 bbl/cd <sup>17</sup>
1997	87,100 bbl/cd <sup>18</sup>
1998	123,650 bbl/cd <sup>19</sup>
1999	51,000 bbl/cd <sup>20</sup>
2000	25,700 bbl/cd <sup>21</sup>
2001*	80,515 bbl/cd <sup>22</sup>

**Total Capacity Lost: 828,465 bbl/cd**

The major oil companies had a financial interest in seeing the closure of independent refineries. By reducing the overall supply of oil and gas and reducing the number of companies involved in producing it, the major oil companies can have tighter reins on the supply and the price.

<sup>13</sup> Energy Information Administration/Petroleum Supply Annual 1999, volume 1, p. 116

<sup>14</sup> Phone Conversation with Mark Connor, Energy Information Administration Analyst, May 9, 2001

<sup>15</sup> *Ibid.*

<sup>16</sup> Energy Information Administration/Petroleum Supply Annual 1995, volume 1, p. 80

<sup>17</sup> Energy Information Administration/Petroleum Supply Annual 1996, volume 1, p. 119

<sup>18</sup> Energy Information Administration/Petroleum Supply Annual 1997, volume 1, p. 80

<sup>19</sup> Energy Information Administration/Petroleum Supply Annual 1998, volume 1, p. 119

<sup>20</sup> Energy Information Administration/Petroleum Supply Annual 1999, volume 1, p. 116

<sup>21</sup> Phone Conversation with Mark Connor, Energy Information Administration Analyst, June 12, 2001

<sup>22</sup> *Ibid.*

**FINDING 4:**

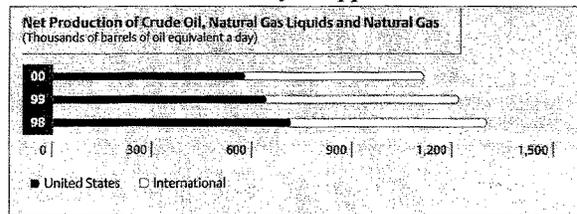
**Record Profits: Oil Companies Reap Benefit of Higher Prices at Pump**

Despite complaints indicting the cost of environmental compliance and manufacturing “boutique” fuels, in the 2000 the oil and gas industry enjoyed record profits that reflect record gas prices.

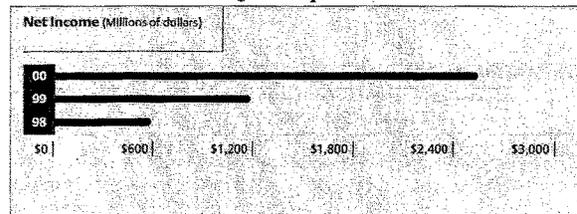
According to Texaco’s 2000 Annual Report, the company’s production steadily decreased from 1998 to 2000, yet its net income more than quadrupled during the same period – with Texaco posting well above \$2.4 billion in net income in 2000.

The following charts show this dramatic relationship and point to the tremendous increase in profits for Texaco.

**Texaco Production Steadily Dropped from 1998 – 2000**<sup>23</sup>



**Texaco’s Net Income Quadrupled from 1998-2000**<sup>24</sup>



Commenting on Texaco’s strong first quarter 2001 showing, Chairman and CEO Glenn Tilton said in a news release, “Our outstanding first quarter results follow our record fourth quarter and mark the third consecutive quarter that earnings surpassed \$800 million.”<sup>25</sup>

<sup>23</sup> Texaco 2000 Financial & Corporate Highlights ([www.texaco.com/investor/2000ar/index.html](http://www.texaco.com/investor/2000ar/index.html))

<sup>24</sup> Ibid.

<sup>25</sup> Texaco Press Release: Texaco Reports First Quarter Earning Data – April 26, 2001

Chevron's net income increased from \$2.07 billion in 1999 to \$5.185 billion in 2000,<sup>26</sup> a 250 percent increase. During the same period, ExxonMobil Corporation's net income jumped from \$7.9 billion to \$17.7 billion.<sup>27</sup> The trend continued with BP Amoco p.l.c. whose 2000 profits were \$11.87 billion, up from \$5.008 billion in 1999.<sup>28</sup>

Among these four companies alone, profits for the year 2000 increased by over \$22 billion dollars in one year. In light of these substantial profits, oil industry claims that they cannot afford to comply with environmental regulations or expand their refining capacity lack credibility.

**FINDING 5:**

**National Energy Policy Incentivizes Oil Companies to Expand Refinery Capacity**

The Bush administration's National Energy Policy, released in May, points to lagging profit margins and costly environmental regulations during the past decade as the reason for lost refinery capacity. The report also states that, "excess capacity may have deterred some new capacity investments in the past," and that "more recently, other factors, such as regulations, have deterred investments."<sup>29</sup>

Oil companies cited excess capacity in the mid-1990s as a cause of inadequate profit margins. It was this excess capacity that the companies sought to eliminate in order to improve their margins. Subsequently, refineries were closed. The industry documents cited earlier indicate that oil companies may have closed those refineries specifically to tighten supply and drive up costs.

This strategy is paying off in multiple ways. In addition to forcing higher gas prices and realizing exploding profits, the industry now stands to benefit from a national energy policy that could reward anti-consumer actions by weakening environmental standards.

The National Energy Policy verifies that America currently faces tight supply and high prices, as well as the fact that oil and gas companies enjoyed higher profit margins in 2000.

"During the last ten years, overall refining capacity grew by about 1 to 2 percent a year as a result of expansion in the capacity of existing, larger refineries. Although there was a significant, sustained improvement in margins during 2000, those gains arose out of a very tight supply situation

<sup>26</sup> Chevron Press Release: Chevron Reports Net Income of \$1.5 Billion in Fourth Quarter And \$5.2 Billion for 2000, January 24, 2001

<sup>27</sup> ExxonMobil 2000 Annual Stockholder Report, released January 24, 2001, p. 29

<sup>28</sup> BP Amoco p.l.c. 2000 Annual Stockholder report, released May 8, 2001, p. 34

<sup>29</sup> Report of the National Energy Policy Development Group, released May 17, 2001, p.7-13

and high volatile prices. Industry consolidation has been a key response to this poor profitability”<sup>30</sup>

This is precisely the situation the 1995 and 1996 oil and gas company documents encouraged as a method of improving profit margins.

The National Energy Policy calls for efforts to “streamline” environmental regulations and permitting to provide financial incentives for oil and gas exploration and development and to institute cost benefit analysis when implementing environmental regulations.

Some of the specific recommendations from the Bush administration’s National Energy Policy include:

**“Recommendations:**

- The NEPD Group recommends that the President direct the Administrator of the Environmental Protection Agency and the Secretary of Energy to take steps to ensure America has adequate refining capacity to meet the needs of consumers.
- Provide more regulatory certainty to refinery owners and streamline the permitting process where possible to ensure that regulatory overlap is limited.
- Adopt comprehensive regulations (covering more than one pollutant and requirement) and consider the rules’ cumulative impacts and benefit.
- The NEPD Group recommends that the President direct the Administrator of the Environmental Protection Agency, in consultation with the Secretary of Energy and other relevant agencies, to review New Source Review regulations, including administrative interpretation and implementation, and report to the President within 90 days on the impact of the regulations on investment in new utility and refinery generation capacity, energy efficiency, and environmental protection.”
- The NEPD Group recommends that the President direct the Attorney General to review existing enforcement actions regarding New Source Review to ensure that the enforcement actions are consistent with the Clean Air Act and its regulations.”<sup>31</sup>

<sup>30</sup> Report of the National Energy Policy Development Group, released May 17, 2001 p. 7-13

<sup>31</sup> Ibid. p. 7-14

While these recommendations stop just short of calling for weaker environmental standards, the report identifies regulations as one of the causes of the shortage of refinery capacity. The implication is that regulations could be relaxed as an incentive for increasing capacity.

If this approach becomes reality, the U.S. government will reward the same oil companies who perpetuated the gasoline supply crunch, those companies who may have deliberately worked to close refineries and reduce supply. These companies, already enjoying record profits because of their actions, would reap even higher profits by recognizing the cost savings of relaxed environmental standards. As a result, oil and gas profits would continue to rise, the public would be saddled with the costs of dirtier air, and consumers would remain unprotected from high gas prices.

## APPENDIX

### *Documents Supporting Wyden Oil Industry Investigation*

- [Chevron document - Competitor Intelligence Information, November 30, 1995](#)
- [Texaco memo - Future Gasoline Specifications, March 7, 1996](#)
- [Wall Street Journal Article, Marathon Ashland Withheld Gasoline, June 11, 2001](#)
- [Note to ARCO Exec. VP James A. Middleton from Tosco CEO Thomas O'Malley, April 25, 1994](#)
- [Summary of Deposition of William C. Rusnack, President of ARCO Products Co., taken May 15, 1997](#)
- [Summary of Deposition of Cecil Blackwell, Senior Chevron Official, taken February 19, 1997](#)
- [Internal Mobil Corp. e-mail regarding Powerline refinery, February 6, 1996](#)
- [Powerline Oil Company letter asking for support in reopening refinery, sent to Mr. M.R. Diaz, General Manager of Supply & Distribution for Texaco Refining & Marketing Inc., April 24, 1996](#)
- [Energy Information Administration/Petroleum Supply Annual 1995, volume 1, p. 80](#)
- [Energy Information Administration/Petroleum Supply Annual 1996, volume 1, p. 119](#)
- [Energy Information Administration/Petroleum Supply Annual 1997, volume 1, p. 80](#)
- [Energy Information Administration/Petroleum Supply Annual 1998, volume 1, p. 119](#)
- [Energy Information Administration/Petroleum Supply Annual 1999, volume 1 p. 116](#)
- [Petroleum Refineries Closed in 2000 & 2001 as reported by Mark Connor, Energy Information Administration Analyst, in phone conversations 6/12/01](#)
- [Texaco 2000 Financial & Corporate Highlights Sheet \( <http://www.texaco.com/investor/2000ar/index.html> \)](#)
- [Texaco Press Release: Texaco Reports First Quarter Earning Data, April 26, 2001 \( \[http://www.texaco.com/shared/pr/2001pr/pr4\\\_26.html\]\(http://www.texaco.com/shared/pr/2001pr/pr4\_26.html\) \)](#)
- [Chevron Press Release: Chevron Reports Net Income of \\$5.2 Billion for 2000, January 24, 2001 \( \[http://investor.chevron.com/ireye/ir\\\_site.zhtml?ticker=chv&script=410&layout=7&item\\\_id=146756\]\(http://investor.chevron.com/ireye/ir\_site.zhtml?ticker=chv&script=410&layout=7&item\_id=146756\) \)](#)
- [ExxonMobil 2000 Annual Stockholder Report, released January 24, 2001, p. 29 \( \[http://www.exxonmobil.com/shareholder\\\_publications/c\\\_annual\\\_00/c\\\_index.html\]\(http://www.exxonmobil.com/shareholder\_publications/c\_annual\_00/c\_index.html\) \)](#)
- [BP Amoco p.l.c. 2000 Annual Stockholder report, released May 8, 2001, p. 34 \( \[http://www.bp.com/downloads/457/BP\\\_RA\\\_Complete.pdf\]\(http://www.bp.com/downloads/457/BP\_RA\_Complete.pdf\) \)](#)
- [Report of the National Energy Policy Development Group, released May 17, 2001, p.7-13 \( \[http://www.energy.gov/HQPress/releases01/maypr/energy\\\_policy.htm\]\(http://www.energy.gov/HQPress/releases01/maypr/energy\_policy.htm\) \)](#)
- [Report of the National Energy Policy Development Group, released May 17, 2001, p. 7-14 \( \[http://www.energy.gov/HQPress/releases01/maypr/energy\\\_policy.htm\]\(http://www.energy.gov/HQPress/releases01/maypr/energy\_policy.htm\) \)](#)

**COMPETITOR INTELLIGENCE INFORMATION  
FOR THE DECEMBER 14 EL SEGUNDO REGIONAL COORDINATION MEETING**

*Note: This information is gleaned from industry publications and employee contacts with outside companies and may not be entirely accurate. (All of this month's data is sourced from OPIS unless otherwise noted.)*

**General**

- **Refining/Marketing/S&D:** A senior energy analyst at the recent API convention warned that if the U.S. petroleum industry doesn't reduce its refining capacity, it will never see any substantial increase in refining margins, pointing out the recent volatility in refining margins over the past 12 months. U.S. average refining margins were sitting at the break-even point of \$3/bbl in March, surged to \$6/bbl in May, then dropped to \$0/bbl in September before crawling up to the present margin of \$2/bbl. In the last nine months, gasoline demand has been healthy and inventories have remained close to record lows, factors that should normally lead to higher prices. However, refining utilization has been rising, sustaining high levels of operations, thereby keeping prices low. *Implication: In what alternate modes can the refinery operate given low-margin economics?*

**Unocal**

- **Refining/Marketing:** Unocal is exploring sale of three refineries and 1,441 gasoline stations in California due to low West Coast refining margins and high capital expenditures required to comply with stringent environmental regulations. Unocal is also exploring introduction of an unbranded mogas supply to move incremental mogas from their refineries. They would provide this to existing branded jobbers who now turn to suppliers like Ultramar, Tesoro and Tosco for supplemental mogas supply.

**Ultramar**

- **Marketing/S&D:** Ultramar approached our S&D traders to see if we would give them CARB PUL in exchange for CARB RUL and a differential. We told them that we cannot commit to any deal until we have experience manufacturing CARB mogas. *Implication: this could be a profitable way to use any excess octane strength at El Segundo.*
- **Marketing:** Ultramar announced on Sep 12 that they plan to spend \$125 million to add 125 company-owned outlets to their existing 146 in California, according to Platt's. This growth plan will leverage off their refining strength, where they have excess production capability compared to branded sales volume.

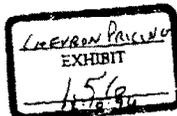
**Tosco**

- **Marketing/S&D:** Tosco will attempt to increase market share and expand into new retail markets over the next three years, according to a Tosco report given to financial analysts. They will invest \$200 million to build 30 new state-of-the-art retail outlets on the West Coast by 1998, and upgrade 350 existing West Coast sites with 'pay at the pump' card readers, car washes, new imaging, and C-stores.

**Tomen-Pacific**

- **Marketing/S&D:** Tomen-Pacific, once a very large presence in the West Coast (WC) cargo market, is planning to shut its WC operation by the end of the year. Evidently, poor WC economics, coupled with decreased cargo activity from the Pacific Rim and the WC have prompted their decision. Tomen is the latest in a series of high-profile companies to retreat from the WC (e.g. Wickland, EOTT, Tosco, Powerline, and Pacific Refining). *Implication: consolidation of trading offices could reduce spot market liquidity and affect pricing. Also, weak West Coast margins may continue to force industry rationalization.*

11/30/95 11:30 AM



AJR 11/30/95

86CHV/02/0002940

180.1



Texaco Rim  
EXHIBIT  
780

TRAM REFINING	
ACTION:	
Executed	MAR 11 '96
/ Date	
CTW	RSN
ASA	RFM
CAF	CAR
DRH	VMP
RCS	RAC
DRG	JAA
JCC	RNM
	MAR
TRACE	
DATE:	
File	File
File	Destroy

DATE: March 7, 1996

TO: Messrs. J. F. Boles  
C. T. Walz  
P. W. Tomlinson  
A. S. Abay  
C. A. Flagg  
D. R. Hall  
R. C. Sheffield  
R. A. Pourciau

FROM: L. D. Hopkins

SUBJECT: FUTURE GASOLINE SPECIFICATIONS

There is a fuels issue of national significance which continues to gather momentum. The issue, being doggedly pursued by the American Automobile Manufacturers Association (AAMA), is one of: 1) altering ASTM gasoline specifications, and 2) finding a more 'efficient' process for making changes to fuel specifications.

From a long-range perspective, it appears that the AAMA are seeking benefits of tighter fuel standards that will come from: a) reducing the variability in gasoline that motorists purchase, and b) restricting key fuel parameters that are perceived to be costly or troublesome to vehicle control systems. Although perhaps presumptive, one could conclude that if the auto companies had their wish, gasoline would be defined as having a very narrow boiling range, be of constant density, be of constant energy content, and not contain any non-hydrocarbon compounds. In this manner, it is alleged, vehicle systems could be designed, built and operated at lowest cost and maximum emissions benefits, notwithstanding the fact that the gasoline suppliers would incur unbearable costs that the Auto's had avoided.

The natural instincts of fuel suppliers (API) to the above issue is a strong, unified defensive posture of taking action to see that the burden of 'fixing' a vehicle problem is not shifted to the oil industry. However, given the trend in recent years and the global drive for cleaner fuels, it is inevitable that the gasoline industry will continue to be regulated and/or pressured toward tighter gasoline specifications. Some suppliers may even voluntarily accede to the desires of the Auto's if they perceive a niche opportunity for competitive advantage.

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The above situation was discussed at a Puget Sound Plant strategic planning meeting in January. From those discussions it became clear that this was not the most critical strategic challenge facing PSP. It was not even determined definitively to be a 'negative', given the business environment on the West Coast as discussed below.

As observed over the last few years and as projected well 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.) Supply significantly exceeds demand year-round. This results in very poor refinery margins, and very poor refinery financial results. Significant events need to occur to assist in reducing supplies and/or increasing the demand for gasoline. One example of a significant event would be the elimination of mandates for oxygenate addition to gasoline. Given a choice, oxygenate usage would go down, and gasoline supplies would go down accordingly. (Much effort is being exerted to see that this happens in the Pacific Northwest.)

Within this context, the question was raised as to whether any parts of the AAMA fuel specification proposal (see Attachment 1 of the attached letter) would serve to benefit our most critical problem on the West Coast. For example, on the surface it would appear that a reduction in T90 maximum would serve to reduce gasoline supplies since it would drop the heavy end of gasoline down into the distillate pool (as one solution). But such a proposal raises many questions concerning the over-all impact on the refining markets, on Texaco and Star Enterprise, and on our competitive posture. In addition, the two examples used here would only incrementally serve to reduce supplies, whereas large adjustments are necessary. But they may be directionally beneficial.

The attached paper is a response to this issue raised during the PSP strategic planning session. It gives more in-depth treatment to the technical issues than it does to the business issues, but both require a lot more analysis, discussion and consensus-building before a conclusion can be reached for TRMI or Star Enterprise.

I would appreciate your review of this issue and advice as to whether you think we should put together a small work-group to assess the issue, identify opportunities, and develop a consensus on the proper position for Texaco/TRMI/Star Enterprise. From your responses, I will provide further direction. Please provide your reply by March 22, 1996.



LDH:

Copies for information: MDRedemer, GTJones

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CCXXXVII NO. 118 BE/AWO ★★ ★★

MONDAY, JUNE 11, 2001

WSJ.com

## Marathon Ashland Withheld Gasoline

### Acts in 2000 Aimed to Keep Prices High, FTC Says; Policies Weren't Illegal

By **Alexandra Berman-Otero**  
and **John W. Haskins**

**Staff Reporter of The Wall Street Journal**

Marathon Ashland Petroleum LLC intentionally withheld supplies of gasoline for the Chicago and Milwaukee markets early last summer to keep prices high, federal regulators found.

It wasn't illegal, and the Federal Trade Commission didn't take action against the big refiner. But the incident highlights big energy companies' efforts to take advantage of tight supplies, scrutiny on Capitol Hill in the wake of this year's sharply higher gasoline prices.

The FTC didn't name Marathon Ashland in its report. But a company spokeswoman confirmed that Marathon Ashland was the company in question.

In two major investigations reported earlier this year, the FTC looked for illegal behavior by oil companies, and didn't find any. But it did find that actions such as those by Marathon Ashland had been previously identified, in an earlier FTC finding, the agency said. BP PLC sold

some of its Alaskan oil to Asia at a time when refined products were tight in the West Coast and has since halted such exports and said its exports were well within the law.

The FTC said in a late March report that actions by an unidentified major Midwest refiner, were among the reasons prices soared by 28 cents a gallon in three weeks in June 2000, to \$2.13 a gallon for regular unleaded in Chicago and to \$2.02 in Milwaukee. The intensity of the price spike, along with the lowest gasoline prices in the Midwest, led the FTC to require lower-emissions gasoline, a costly widespread outrage and led Congress to call for the commission's antitrust probe.

In explaining the many reasons for the spikes, the FTC said that "a significant part of the supply reduction" was caused when three unidentified companies produced 20% less of the new low-emissions gasoline than they produced of the old blend in 1999. The commission said production decisions appear to have been made independently for economic reasons, driven by the higher cost to produce the specially formulated fuel. Regulators first required the new lower-emissions gasoline last summer in about one-third of the country, including densely populated cities in the Midwest.

But unlike in other cases, Marathon Ashland, a subsidiary of the refining and marketing joint venture between Ash-

land Inc. and the Marathon Oil Co. unit of USX-Marathon Group, substantially increased its production of the new lower-emissions gasoline. Then, despite its earlier claim that it would not produce more of the new gasoline, the company found it sold to help keep prices high, the FTC found. The company "thus found itself with considerable market power in the short term," the report said.

Linda Casey, the Marathon Ashland spokeswoman, disputed the FTC's finding that the refiner had unlimited supply, saying the agency had no way of knowing the piles out of context. She said the company sold "significant" amounts of its gasoline to competitors who needed it. "Marathon did everything in its power to keep that supply in the Midwest steady," she said.

Marathon Ashland says problems on the key Midwest gasoline pipelines constrained supply through the pipeline, as much as we could through the pipeline," Casey said. "We even drove trucks to get supply into the area."

In its investigation, however, the FTC said Marathon Ashland executives said they were trying to maximize profits. One executive said the company would rather sell less gasoline and earn a higher margin on each gallon sold than sell more and lower profits, the report said. Another employee fretted about the possibility of flooding the market and thus reducing high gasoline prices.

Ms. Casey wouldn't comment on what the executives said or on whether Marathon Ashland's actions were intended to maximize profits.

The steep prices substantially boosted profits for Marathon Ashland, which operates 6,000 retail outlets in 21 states, primarily in the Midwest and Southeast. USX fillings and marketing joint venture filed after-tax refining and marketing profits of \$1.1 billion in the second quarter of 2000, or about 10.4 cents a gallon on all petroleum products sold, more than double from the year before.

The price spikes bolstered profits of other companies as well, especially BP, which has a large Midwest presence through its Amoco brand. In the Midwest, the FTC also attributed the price increases to other factors, including unexpected supply and demand difficulties, unexplained refinery outages, forecasting errors by some companies, light refining capacity and low inventories. In addition, only Chicago and Milwaukee rely exclusively on low-emissions gasoline made with corn-based ethanol. Marathon Ashland is the nation's largest blender of ethanol for gasoline.

Robert Ploosky, who resigned as chairman of the FTC a week ago, said the main reason for volatile gasoline prices in the U.S. last year was tight refining capacity. "When you operate above 90% capacity all the time, something is going to go wrong every summer," he said. He also said that a tight market to boost profits, he declined to name any individual companies.

While the FTC has completed its investigations, a separate inquiry by California's attorney general into the California market remains active.

FROM LARHAM & WATSON SAN DIEGO 619 456 7419 WED 5 21 97 10:46/AM 10745/AM

Tosco Corporation  
72 Cummings Point Road  
Standard, CT 06902  
Telephone: 203 977-1001

Thomas S. O'Malley  
Chairman and Chief Executive Officer

**Tosco**

25 April, 1994

Mr. James A. Middleton  
Executive Vice President  
ARCO Products Company  
515 South Flower Street  
Los Angeles, CA 90071

Dear Jim:

I appreciate your taking the time out of your busy schedule to see me on Monday morning. Arco represents an important part of Tosco's business. We want to do everything we can to nurture this important business relationship and make sure that it keeps up the tradition of being mutually beneficial.

I've attached a copy of Tosco's press release covering our 1st quarter earnings which represents real progress for our company.

Kindest regards,

Thomas S. O'Malley

TDO:bm

## SUMMARY OF DEPOSITION OF WILLIAM C. RUSNACK

TAKEN MAY 15, 1997

PAGE	DESCRIPTION
7	William Rusnack - ARCO Products Company President for three years and six or seven months [at time of depo 5/15/97].
9	Employed with ARCO 31 years.
14-15	Exhibit 218 - organizational chart of ARCO - Rusnack recognizes it as a top level organization chart of Atlantic Richfield Company.
15:16-19	Rusnack states, "...I report to an executive vice-president of the corporation... Tony Fernandes; and he, in turn, reports to the chairman and CEO, Mike Bowlin."
16:1-3	"... fellow Executive Vice-President, Mr. Ronald J. Arnault... Executive Vice-President, Chief Financial Officer...."
16:28-17:10	Q. "...what is it that you do as President of ARCO Products Company?" A. "...I'm responsible for... the refining and marketing business within ARCO... which means if we purchase raw material, mostly crude oil, and refine it into petroleum products... those are principally gasoline, diesel, jet fuel, petroleum coke - and we sell those to customers."
22:15-24	Q. "...Can you tell me how the Products Company gets involved in making the determinations as to what kinds of... crude oil you would acquire for your... operations?" A. "By really economics [sic], by trying to maximize the - or optimize the gross margin that we can achieve in running our refineries; 'gross margin' being defined as the value of the products that come out of the refinery versus the cost of the raw material that goes into the refinery."
26:15-17	"[ARCO has]... two refineries: Cherry Point and Los Angeles - Los Angeles Refinery [LAR], actually, being in Carson, California."
26	The day-to-day operations are supervised by Ron Kiracofe. He is a direct report to Rusnack.

g:\regular\depo-sum\rusnack

1

*(Quoted material is checked - verbatim - sf)*

93:8-  
96:10

"CARB Gasoline Strategy Development - Business Environment." The left-hand corner, it says 'P + E 3/3/94.' ..."

Q. "Can you identify this document for me...?"

A. "What I would tell you is I can't specifically identify it, other than this would be representative of, you know, similar things that - that we - you know, I have looked at and - in the past."

Q. "Okay. Now, in - in March of 1994, did you have a sense of how ARCO was going to meet your - your marketing needs for California when - when CARB gas was introduced in 1996? ..."

A. "I mean I had a sense, but I'm not sure as a company we had a - we had a consensus of what we were going to do. I mean we had - we certainly didn't have it all figured out. We had...I guess a number of different potential cases that we could look at, but at this point in time, we didn't know."

Q. "...what was your recollection - what's your recollection of what those potential cases were in this time frame? That is March of '94."

A. "In a very general sense, I think we - we recognize that - that we were not going to, first of all, be able to produce 100 percent of the CARB gasoline that we needed to supply our marketing system; and we knew that we were going to have to go into the marketplace in some fashion to secure additional supplies to supply the demand that we expected to have and - for CARB gasoline; and that at least one of the options that was still there was to do something with Tosco in terms of the - once again, the current agreement that we had with them and some renegotiation or - or something of that agreement, but that we - we believed that we either had or needed to develop other options, other than simply that option."

Q. "...And what were the other options that you thought you would attempt to develop?"

A. "Well, we still believed that we had a - a potential option as an example to - to supply some CARB gasoline out of Cherry Point...We believed that in addition to Tosco...as best we could determine from our analysis, there were other - there were going to be other people producing CARB gasoline who would be producing more of it than their marketing requirements were, you know, proprietary marketing requirements; and that they would be in a position to want to sell some of that gasoline to a third party."

Q. "Okay. Again, in March of '94, who did - which companies did you feel fell into that category?"

A. "Well, you're really testing my memory here. I mean almost all of them, probably with the exception of - I mean this is going to sound contradictory, but with the exception of Tosco, we believed that unless we did something specifically with Tosco, that would support them making additional CARB, that they would only make as much as was their own requirement. But if we were to - to

enter into an agreement which extended our transaction, and - and therefore, provided them some incentive to make additional CARB, that they would do it, but that without that, they were likely to only make as much CARB as was required for themselves; whereas we saw other California refiners, for the most part, converting all of their California refining gasoline capacity to a capacity to make CARB."

*[Note: Pages 93-96 discuss Exhibit 522.]*

97:22-26 Environmental Impact Report review - "...First of all, it's my understanding that ARCO, along with everyone else who is - who does anything in a refinery, to construct something...is required to - to file an Environmental Impact Report...."

98:4-8 "And to the extent that these were put out for public comment, we did look at them...and tried to use them to learn what was going on from a competitive standpoint."

99:7-22 "From the analysis we did of the available information out there in the public, we made estimates of - of what the resulting production of CARB would be for everybody in the marketplace; and from the existing information on, you know - published information, taxable gallons sold by people and so on, some estimate of what their current demand for the product was, and then made an assessment as to whether who might be in a position to be making more CARB gasoline than they were currently selling...And out of that, then made an analysis of who might be the people who we could potentially buy CARB gasoline from."

Q. "Okay. And was Chevron on that list?"

A. "Yes."

100:6-9 J. Kowal formerly worked for ARCO.

Q. "Do you know whether or not Mr. Kowal had meetings with representatives of Chevron?"

A. "I know he did have meetings with representatives of Chevron."

*[Note denial as to whether representatives of ARCO or Chevron met:]*

Q. "Now, there were some meetings, were there not, where - in the spring of 1994 between representatives of ARCO and Chevron, were there not?"

A. "I don't know." (99:25-28.)

- 102:6-18 Q. "...had there been an effort up that point, that is up to March of 1994, to gauge the overall level of demand for CARB gas in California as against some total supply level that you became aware of?"  
 A. "Yes. ...somebody did some analysis and made their best guesstimate as to - as to what it was currently and what it might be three years from now."
- 104:14-  
105:15 Q. "Any meetings. Let's talk about any meetings with Tosco."  
 A. "Yes."  
 Q. "Okay. Let's - any meetings in 1994?"  
 A. "I believe there was at least one meeting in 1994."  
 Q. "Okay. And do you recall who that meeting was with?"  
 A. "Yes. Tom O'Malley."  
 Q. "Okay. Do you recall the purpose of that meeting?"  
 A. "To explore whether there was any - how do I say it - any way that was of both interest to ARCO and Tosco, to have Tosco produce some CARB gasoline for ARCO that was acceptable to both parties."  
 Q. "All right. And how long was that meeting?"  
 A. "I don't remember."  
 Q. "Did anybody else attend?"  
 A. "I don't think so."  
 Q. "...what was the substance of the discussion?"  
 A. "Just what I said, to explore whether or not there was any mutual benefit, any mutual interest, any profit for both ARCO and Tosco, to find a way to have ARCO purchase or Tosco sell CARB gasoline to ARCO, recognizing that the agreement that was in place at that time did not provide for the supply of CARB gasoline."
- 106:15-16 The volumes - "20,000 to 22,000, 23,000 barrels a day of gasoline; and 30,000 barrels a day range for crude oil." (Tosco-ARCO exchange.)
- 108:24-  
109:3 May 25th, 1995 - "ARCO and Shell Enter Into Clean Fuels Arrangement...30,000 barrels a day...." (Arco-Shell Exchange Agreement.)

SUMMARY OF DEPOSITION OF CECIL BLACKWELL (VOL. 1)  
TAKEN FEBRUARY 19, 1997

PAGE	DESCRIPTION
8:23-27	Q. "...how long have you been employed by Chevron Products Company?" A. "...by Chevron Products Company...since 1984, but I've been employed by the Chevron Corporation since 1971."
9	[Present job 2/19/97] as general manager of fuels regulatory legislative and emissions technology group.
10:12-25	A. "...From 1988 through 1995, I was general manager of the western supply region." Q. "...as the general manager of the western supply region, what was it that you did for the company?" A. "We were responsible for crude supply to our western area refineries and the product supply to our marketing in those areas...." Q. "...When you say 'products to the market,' are you referring to the gasoline, among others?" A. "Gasoline, jet, diesel, fuel oil."
11:3-17	A. "... We were responsible for providing the product to the marketing terminals pursuant to marketing's projection of their demands; primarily, this was product that comes out of our own refineries, but in a large system, what you make and produce at your refineries doesn't always match what your marketing people require, and so we were the balancing...were responsible for moving the product from the refiners, the marketing terminal, but we made up the slack." Q. "...you would ensure that...the products of the refineries were delivered as marketing requested?" A. "Right."
15:18-28	Q. "... During the time you were performing this, who were you reporting to?" A. "I was reporting to the vice-president of supply and distribution." Q. "... Who was that, if you recall?" A. "... It started off as Bob Walsh..." Q. "Okay." A. "Then it became Paul Larson. Then it became <u>Peter McCrea.</u> "

would stand." (Emphasis added.)

- ...
- A. "... ARCO had an arrangement with Tosco. We had a belief that that arrangement [ARCO/Tosco] was potentially coming to an end or was up for whether it should be renewed or not. And so there was [sic] various scenarios: One scenario would be if ARCO and Tosco continued their arrangement. Tosco would require less gasoline. Another scenario, from a planning standpoint, was if that arrangement wasn't continued, ARCO might need more gasoline in the Bay area. So these were just trying to describe all the possible outcomes planning - from a planning scenario standpoint, all the possible outcomes."
- 49:1 A. "ARCO did approach Chevron."
- 50:17-21 Q. "...at this time, Chevron knew...that when 1996 came around, both of the refineries would be producing 100 percent CARB gasoline, correct?"
- A. "That's correct."
- 51:9-55:10 Reference to Exhibit 310 - cover letter, January 18th 1994, captioned, "USWC 1996 MOGAS Strategy Meeting Agenda" from Mike Spurlock.
- Q. "What was Mike Spurlock doing for the company at this particular time?"
- A. "Mike Spurlock was a planner that worked in our strategic planning group."
- ...
- A. "...I had been put in charge of a team to start to address the issue of what - how we would handle our surplus CARB production, and that was the team that was working with me. Willie George was in our marketing department; Yerigan was a planner; McDiarmid is a lawyer; Nick Clark was a supply trader; Scott Hayward was in our marketing department; and Krider was in our refining department."
- Q. "All right. And...did this group have occasion, then, to meet...with any degree of regularity in 1994?"
- A. "Yes, we did."
- Q. "...how often did you folks meet?"
- A. "We met as a group or as a subgroup, I would say, maybe three, four, five, six times over this period."
- Q. "When you say 'this period,' 1994?"
- A. "1994. I'm not sure whether this extended into 1995. I don't think it did. I think it would probably have been during 1994."
- Q. "All right."
- A. "Now, looking through the attachments...to the document that was sent, it looks like there...is a series of - it says, 'USWC Competitive Profile,' and then there is a series of pages. ARCO

is mentioned; Tosco, Avon/Ferndale is mentioned; and Exxon is mentioned. ...Shell is mentioned; Texaco and so on; Mobil; BP; Pacific; Powerine."

- Q. "Do you know how the information was pulled together regarding the competitors?"
- A. "It was ad hoc. In the case of companies who had refineries that we had models for we would have run the models, updated by permits that had been applied for...new facilities. We would have extrapolated from our experience of how these companies behaved in the marketplace in terms of what their trading practices were, in terms of what their marketing practices were. And so we would extrapolate it from various places in the company from people who worked in the various aspects of our business who would have knowledge of these companies from -- from competing with them, and this information would have been pulled together and summarized on these sheets."
- Q. "All right. Now, at that -- in this time, 199- -- early 1994, both refineries were making conventional gasoline, were they not?"
- A. "That's correct."
- Q. "Did Chevron at that time have a practice of -- of exchanging gasoline with others?"
- A. "Yes."
- Q. "All right. And were -- did you have exchange relationships with any of the -- any of the companies attached?"
- A. "Yes."
- Q. "Okay. And can you tell me, if you recall, what those companies -- what -- the identities of those companies at that time?"
- A. "Shell, we had -- the largest exchange was with Shell. I think we had some smaller exchanges with others."
- Q. "Now, Shell had a refinery in Southern California up until 1991, did it not?"
- A. "Yes."
- Q. "And can you share with me the date that you commenced your exchange agreement with Shell."
- A. "Shortly after they closed their refinery, we -- we commenced the exchange, whether it was six months or -- within that year time frame."
- Q. "All right. Now, was the El Segundo refinery producing gasoline in that time frame, conventional gasoline, for that particular exchange agreement?"
- A. "Let me back up. I think our exchange with Shell -- we had an exchange with Shell in place even before they closed their refinery. I think the exchange was modified after they closed their refinery."
- Q. "What is your recollection of the nature of the exchange agreement before Shell closed down its Southern California refinery?"
- A. "I can't recall."

- Q. Okay. And what level was the exchange agreement operating in early 1994 with Shell?"
- A. "It was in the 20- to 25,000 barrel-a-day range."
- Q. "Now, when ARCO contacted Chevron in this time frame, did Chevron, if you know, discuss with ARCO the fact that Chevron had an exchange agreement with Shell?"
- A. "No."
- Q. "Was the exchange agreement with Shell at that time a matter of -- of public information?"
- A. "I think people would -- would know, because of the -- we used common regulated pipelines to -- to move the material, so the pipeline -- the independent pipeline companies would know that they would be picking up material at a Chevron refinery and delivering it to a Shell refinery. So in that context, it was public. We did not have as a practice to publicize any commercial arrangements that we had with any company."

56:21-  
57:28

Reference to Exhibit 311

- Q. "It is handwritten notes... It says... 'A-Team Meeting, Thursday, 1/27, 2:00 p.m. To review ARCO initiative.' ... Was there an A-Team of some kind? What does that refer to?"
- A. "The A-Team was the Products Company management team consisting of the president and his direct reports."
- Q. "... What was the function of the A-Team?"
- A. "It wasn't a formal function, although our president liked most of the more significant issues, that we got involved in as a company to be considered by his whole group. He liked to get the opinions of everyone."
- Q. "... And again, the president in this time frame was?"
- A. "Dave Hoyer."
- Q. "Number five says: 'Develop ARCO alternatives for supply on a dollars/barrel basis.' Do you see that?"
- A. "Yes."
- Q. "Does that particular phrase mean anything to you?"
- A. "It suggests to me at this point we had already been approached and were considering the possibility of doing an exchange with ARCO as a way to profitably dispose of our surplus CARB capability; and we were looking at the various ways that we would move the product to ARCO, seeing what it would cost us."
- Q. "All right. Now do you know whether or not anybody from ARCO was present at the January 27th meeting?"
- A. "The date on this is not clear...."

71:6-28

Q. "... It says, 'Call Shell for update on CARB/USWC plans.' Did you then call Shell for an update on those plans?"

A. "I believe I must have, and here again.... We wanted to find out whether Shell was interested in continuing this exchange in the CARB, because it influenced what our surplus was, and we kept - we wanted to get some indication from Shell whether they were going to continue this, so we would not come up to the end and be surprised and have a much larger surplus than we thought we would have."

A. "The individual that I recall talking to is... Bruce Drake [at Shell]."

72:28-  
73:1

A. "I don't believe we had any agreements with Tosco."

79:9-  
82:11

A. "...the spot market tends to be fewer transactions, so therefore it's less liquid."

...[Back on the Record]

THE WITNESS: "Counsel, could I - I may have misled you on a previous question referring to document or Exhibit 313. 'Action Items from ARCO meeting 3/25/94.' I was assuming that that was referring to a meeting that we had with ARCO. On review, that was an internal Chevron meeting on 3/25. As you can see from the attached notes, it's the ARCO Team Meeting; and so this would have been - we did not meet with ARCO on 3/25. This was an internal Chevron meeting."

Q. "... 'CLB' would be you, correct?"

A. "Yes."

A. "J. Coval."

Q. "Coval."

A. "He is the other ARCO supply vice-president whose name I couldn't remember before. That's him."

Q. "... Then it says, 'Bill Rusnick [sic] - President'?"

A. "Yes."

Q. "And 'Ken Riley'?"

A. "Yes."

Q. "All right. Now, were the ARCO people with whom the negotiations - strike that. Were you then - were you reporting to this group internally, then, on negotiations that had occurred prior to this time?"

A. "Yes. And the only people that we had talked to from - at this point, I guess, based on this, would have been Bill Arledge and Jay Koval, and I - at this point, it's possible - we never talked with Bill Rusnick [sic], and it's possible that Ken Riley had not come into the picture yet."

- A. "Well, I assume this is a meeting we had to touch base on where we are, where we think we're going, what else we need to be doing."
- 326:7-26 Q. "All right. Before the short break, we were talking about Exhibit 313, which was captioned, 'Action Items,' and relates to the 'ARCO Action Items From ARCO Meeting 03-25-94.' So, again, looking at the...front sheet of Exhibit 313, there is some handwriting - there is a typed-in series of notations, and then there is some handwriting on that. I'd like to ask you to flip to the second page, if you could. The handwriting, I believe, is that of Mr. MacDonald, is it? Do you know?"
- A. "I believe it is Mr. Fowles'."
- Q. "Mr. Fowles'. All right. Now, looking at the handwriting down below, there is a reference to 'CLB,' 'CLB Update on Negotiations.' Do you see that in the lower left-hand corner?"
- A. "Yes."
- 328:13-330:11 Q. "All right. So the status of - what was the status of the negotiations with ARCO in your mind around March 24<sup>th</sup>, 1994?"
- A. "Well, I'd like to look back at the chronology to help refresh me, if I could. This is March 25<sup>th</sup>. Well, by March 25<sup>th</sup>, we had had a series of telephone discussions and meetings; and at least through the March 9<sup>th</sup> meeting, we had exchanged - we had exchanged concepts on - pricing concepts. And you had asked previously about telephone discussions, and I - on the break, trying to think back, where - you know, what some of the other conversations might have been. I do recall a telephone conversation with Mr. Kowal that would have taken place prior to our meeting in Los Angeles on the 4<sup>th</sup>; because, as I recall, I had two discussions with him while he was still involved on this issue. One was a telephone conversation, and one was the meeting."
- Q. "Okay. And what was the substance of the telephone discussion with Mr. Kowal?"
- A. "As I recall, that - the telephone discussion came prior to the meeting, and I think it was a discussion to - for me to confirm at a level higher than Arledge that this was something that they were interested in. It just wasn't a - an idea of a trader. And he, as I recall, confirmed their interest and - and during this - this might have been the time where he was talking about their interest in doing this; and if we can reach a commercial agreement with them, that he felt that, you know, this could change some of their investment decisions or change investment decisions of others on supplying CARB gasoline."

JUN 01 '01 15:17 FROM:

T-182 P.05/07 F-618

reporting, our sources believe that Powerline's chances of restarting this year (or ever) are very low for the following reasons:

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1) The refinery process units and equipment is still under contract to Vas Kanyan whose intentions were to ship it to India. The group that bought the refinery land must first buy the equipment back from Kanyan before it gets on a boat. Kanyan may already have contracts in India that may not be broken or are more valuable than a sellback to the new Powerline group.

2) They estimate the start up expenses to be rather high - \$20MM: sounds steep but even at half that, it's a big number. There are serious doubts that financing can be acquired for the startup plus any low margin periods.

Even if they restart and they get a 7cent exemption, with current conventional refining margins so bad, the exemption may not be enough to make money for them on an operating basis. When we looked over their books last year, their operating expenses were about 3cpg of G&D higher than ours so they don't have alot of comfort zone if they have any operating problems in the restart.

Alot of big if's need to come through for Powerline to restart.

Bottom line: I'd bet Barry Switzer gets 'coach of the year' before Powerline restarts.

Jim

Reply Separator

Subject: POWERLINE CARB SMALL REFINER

STATUS

Author: Mark J. Dizio at TORMFG-P01

Date: 2/3/96 2:06 PM

JIM, ANY COMMENTS AS TO WHETHER POWERWINE WOULD EVEN STARTUP? REGARDS MARK

LUCILLE,  
IF POWERLINE RE-STARTS AND GETS THE SMALL REFINER EXEMPTION, I BELIEVE THE CARB MARKET PREMIUM WILL BE IMPACTED. COULD BE BY AS MUCH AS 2-3 CPG.

AS BACKGROUND, WE HAVE BEEN PROJECTING THE CAL CARB POSITION TO BE BALANCED TO SHORT IN THE SUMMER AND LONG IN THE WINTER. THE POTENTIAL SUMMER SHORTFALL WOULD PROBABLY BE MET VIA GULF COAST ALKYLATE IMPORTS WHICH WE ESTIMATE WOULD EQUATE TO CARB PLUS A 10-12 CPG PREMIUM TO CONVENTIONAL. IN THE WINTER, WE WOULD EXPECT THE CARB PREMIUM WOULD BE NO LESS THAN THE REFINERS INCREMENTAL COST OF PRODUCTION, OR ABOUT 7-8 CPG. ON AVERAGE, WITHOUT ANY SUPPLY DISRUPTIONS THIS WOULD MEAN AN AVERAGE CARB PREMIUM OF ABOUT 9-10CPG VERSUS CONVENTIONAL.

MOB17884

JUN 01 '01 15:17 FROM:

T-182 P.06/07 F-818

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THE RE-START OF POWERLINE , WHICH RESULTS IN 20-25 TBED OF GASOLINE SUPPLY AT A COST OF ONLY 4-5 CPG VERSUS CONVENTIONAL ( COST OF MIXE BLENDING ), COULD BACK OUT SUMMER ALKYLATE IMPORTS AND EFFECTIVELY SET THE CARB PREMIUM A COUPLE CPG LOWER ( ADVANTAGE OF 6-8CPG VERSUS IMPORTS). IN THE WINTER , THE POWERLINE INCREMENTAL COST IS 2-3 CPG LOWER THAN OTHER REFINERY INCREMENTAL COSTS. REGARDING THE OTHER TO SMALL REFINERS , KERN AND PARAMOUNT , I DONT SEE ANY REAL IMPACT . EACH REFINER CAN PROBABLY SUPPLY MAX 5TBD, AND KERN IS UP NORTE.

NEEDLESS TO SAY, WE WOULD ALL LIKE TO SEE POWERLINE STAY DOWN. FULL COURT PRESS IS WARRANTED IN THIS CASE AND I KNOW BRIAN AND CHUCK ARE WORKING THIS HARD. ONE OTHER THOUGHT, IF THEY DO START UP, DEPENDING ON CIRCUMSTANCES , MIGHT BE WORTH BUYING OUT THEIR PRODUCTION AND MARKETING OURSELVES. ESPECIALLY IF THEY START TO MARKET BELOW OUR INCREMENTAL COST OF PRODUCTION. LAST YEAR WHEN THEY WERE DUMPING RFG AT BELOW COST OF MIXE , WE PURCHASED ALL THEIR AVAILS AND MARKETED OURSELVES WHICH I BELIEVE WAS A MAJOR REASON THAT THE RFG PREMIUM LAST YEAR WENT FROM 1 CPG IN JAN TO 3-5CPG THRU TO THEIR SHUTDOWN. WE'LL HAVE TO SEE HOW THIS PLAYS OUT , HOWEVER, IF THEY DO START UP, I'D SERIOUSLY CONSIDER THIS TACTIC. REGARDS MARK

Please develop response. Thanks.

Forward Header

Subject: POWERLINE CARB SMALL REFINER

STATUS  
Author: MCCOOL/RJ (NECCVMD.RJMCCOOL) at CCFXGTW1  
Date: 2/2/96 2:39 PM

To: LJCavana--TORI LJ CAVANAUGH  
cc: GWBERRY --NECCVMA GW BERRY MDDIMEZZ--NECCVMD MD DIMEZZA

From: Bob McCoel  
Subject: POWERLINE CARB SMALL REFINER STATUS  
if they get ok, what impact  
bob

Bob

\*\*\* Forwarding note from RJMCCOOL--NECCVMD 02/02/96 13:41 \*\*\*  
To: EARENNA --FFX1 EA RENNKA  
cc: DMSHERMA--FFX1 DM SHERMAN

From: Bob McCoel  
Subject: POWERLINE CARB SMALL REFINER STATUS  
fyi  
bob

Bob

\*\*\* Forwarding note from BMBARNZY--FFX7 96/02/02 14:31 \*\*\*

From: Brian M. Barney at FFXMFG-PO1 1996/02/02 14:31  
To: MCCOOL/RJ (NECCVMD.RJMCCOOL) at CCFXGTW1  
cc: Charles R. Morgan at TORMFG-PO1, Randy T. Smith at FFXMFG-PO1  
Subject: POWERLINE CARB SMALL REFINER STATUS  
To: Lucille J. Cavanaugh at TORMFG-PO1  
cc: Vickie S. Jones at FFXMFG-PO1

MOB 17685

----- Message Contents

----- Forwarded with  
Changes ----- From: Charles R. Morgan at TORMFG-PO1

JUN 01 '01 15:17 FROM:

T-182 P.07/07 F-618

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Date: 2/2/96 8:41AM  
To: Randy T. Smith at FFXMFG-PO1  
cc: Brian M. Harney at FFXMFG-PO1  
cc: Vickie S. Jones at FFXMFG-PO1  
Subject: POWERINE CARB SMALL REFINER STATUS

Forwarded  
From: John F. Faulstich at TORMFG-PO1

Date: 2/1/96 6:52AM  
To: Charles R. Moryan  
To: Joseph V. Waldinger  
cc: Jim E. Horner  
cc: Wes T. Yee  
cc: BACKETT/DJ\* (NECCVMA.DJBACKET) at CCFXGTW1  
cc: MERGOTTI/GA (NECCVMD.GAMERGOT) at CCFXGTW1  
\*cc: #Business Leadership Team  
Subject: POWERINE CARB SMALL REFINER STATUS

FYI-We vigorously opposed the small refiner exemption when it was proposed back in 1993. We also participated in a law suit with other majors to oppose the exemption.

While the exemption was adopted and the law suit was not successful, Chuck Moryan was able to get some significant requirements put into the regs that had to be met before an exemption could be granted.

Chuck and Randy are working the issue of these applications now with CARB and we're contacting our lobbyist to see what else can be done. WSPA is not involved because of antitrust issues.

Brian

Forward Header  
Subject: POWERINE CARB SMALL REFINER STATUS

Author: Charles R. Moryan at TORMFG-PO1  
Date: 2/2/96 8:41 AM

CARB DECISION ON POWERINE WAIVER WON'T COME UNTIL NEXT WEEK

96-01-31 14:31:07 EST

CARB DECISION ON POWERINE WAIVER WON'T COME UNTIL NEXT WEEK

A decision from the California Air Resources Board (CARB) on whether

or not to grant a small refiner waiver to Powerine won't come until next week, say CARB officials. A board of ARB members is still weighing whether or not to grant the waiver not only to Powerine, but also to Kern and Paramount as well.

If the ARB grants the waiver to Powerine, it would have considerable effect on the market. It would mean that for one year, Powerine could produce a fuel that would have only four of the eight properties that CARB mandates be in all gasoline produced after March 1, 1996. That means as much as 7ct gal price advantage for Powerine, versus other L.A. refiners such as Chevron and Texaco. In addition, if the waiver is granted, Powerine would also have the right to reapply for another one-year waiver.

Sources on the West Coast note that the market is less concerned about the Paramount and Kern applications, since neither of those

refiners are big shippers on the SFP pipeline system. Powerine, if they resume operations, would be a big shippers into the L.A. basin,

MOB 17686

**POWERINE Oil Company**

12354 Lakeland Road, P.O. Box 2108  
 Santa Fe Springs, California 92770-2807

CI 10 844-8881  
 CI 10 844-8111



TLJ No: 4770005  
 A/B Powerine  
 Reference CI 10 844-8880

April 24, 1996

Mr. M. R. Diaz  
 General Manager, Supply & Distribution  
 Taseco Refining and Marketing, Inc.  
 10 Universal City Plaza, 6th Floor  
 Universal City, CA 91608

Dear Mr. Diaz:

Powerine Oil Company is attempting to restart its Santa Fe Springs, California, refinery which has been down since last July. We plan to resume a limited operation in May 1996, with the refinery back in full production by summer. When the refinery is in full production, Powerine plans to produce 20,000 barrels per day of CARB reformulated gasoline and 20,000 barrels per day of CARB and EPA diesel fuel and jet fuel.

In order to ease the current tight supply of gasoline, we propose accelerating our restart by offering your company a portion or all of Powerine's refinery production capacity under a processing agreement arrangement with terms and conditions that I believe you will find very favorable. Powerine is aware that the introduction of CARB reformulated gasoline combined with refinery operating problems in California has resulted in product demand not being met by the California refiners. This situation is forcing the industry to import product into California from refining centers outside the West Coast. A processing arrangement with your company would enable Powerine to resume full production much sooner, contribute to meeting CARB product demand and ensure that CARB reformulated gasoline standards are upheld. In addition, a processing arrangement with Powerine would provide your company with additional products to meet your marketing requirements.

If you are interested in discussing a processing arrangement with Powerine, please contact me as soon as possible. Powerine is prepared to meet with your company immediately to negotiate a processing arrangement with mutually agreeable terms for a portion or all of Powerine's refinery production. Powerine will enter into a processing agreement with the first company willing to proceed on acceptable terms.

I look forward to your timely response to our offer.

Very truly yours,

*A. L. Gualbert*  
 A. L. Gualbert  
 Chief Operating Officer

*1 act*

ALG/mis

<b>TRMI S&amp;D</b>			
APR 27 '96			
MRD	<input checked="" type="checkbox"/>	RJP	
RJG	<input checked="" type="checkbox"/>	WST	
JDM	<input checked="" type="checkbox"/>		
		DEC	
DUE DATE			
FOLLOW UP			
FILE <input checked="" type="checkbox"/>			

SP6C 2 TX 000966  
 CONFIDENTIAL

CONFIDENTIAL

TEX 0021141

Table 34. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, 1996  
(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil .....	713	0	0	1,587	0	0	0	0
<b>Petroleum Products .....</b>	<b>418</b>	<b>1,178</b>	<b>0</b>	<b>20,377</b>	<b>5,393</b>	<b>0</b>	<b>287,032</b>	<b>15,974</b>
Liquefied Petroleum Gases .....	50	0	0	0	0	0	2,775	0
Unfinished Oils .....	272	0	0	315	303	0	83	0
Motor Gasoline Blending Components .....	19	437	0	0	102	0	6,413	0
Finished Motor Gasoline .....	44	29	0	9,746	580	0	165,256	8,081
Reformulated .....	0	0	0	0	0	0	7,940	6,840
Oxygenated .....	44	0	0	2,002	0	0	0	0
Other .....	0	29	0	7,744	580	0	158,316	1,441
Finished Aviation Gasoline .....	0	0	0	0	0	0	745	65
Jet Fuel .....	0	0	0	740	0	0	31,455	836
Naphtha-Type .....	0	0	0	0	0	0	0	0
Kerosene-Type .....	0	0	0	740	0	0	31,455	836
Kerosene .....	0	0	0	805	0	0	1,152	0
Distillate Fuel Oil .....	0	376	0	6,206	1,475	0	50,483	6,715
0.05 percent sulfur and under .....	0	125	0	2,552	1,412	0	30,161	750
Greater than 0.05 percent sulfur .....	0	251	0	3,654	63	0	20,322	5,965
Residual Fuel Oil .....	21	0	0	441	2,481	0	15,716	277
Less than 0.31 percent sulfur .....	0	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur .....	0	0	0	0	0	0	64	0
Greater than 1.00 percent sulfur .....	21	0	0	441	2,481	0	15,652	277
Petrochemical Feedstocks <sup>a</sup> .....	12	0	0	0	40	0	50	0
Special Naphthas .....	0	45	0	0	0	0	1,019	0
Lubricants .....	0	281	0	767	162	0	8,446	0
Waxes .....	0	0	0	0	0	0	0	0
Asphalt and Road Oil .....	0	0	0	1,356	250	0	2,365	0
Miscellaneous Products .....	0	10	0	0	0	0	64	0
<b>Total .....</b>	<b>1,131</b>	<b>1,178</b>	<b>0</b>	<b>21,964</b>	<b>5,393</b>	<b>0</b>	<b>287,032</b>	<b>15,974</b>

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil .....	0	0	0	0	0	0	2,218
<b>Petroleum Products .....</b>	<b>19,003</b>	<b>252,055</b>	<b>41,508</b>	<b>5,981</b>	<b>979</b>	<b>0</b>	<b>2,402</b>
Liquefied Petroleum Gases .....	0	2,775	57	0	0	0	0
Unfinished Oils .....	0	83	1,203	459	0	0	1,329
Motor Gasoline Blending Components .....	6,161	232	170	508	0	0	434
Finished Motor Gasoline .....	2,332	155,843	19,331	4,243	979	0	0
Reformulated .....	1,300	0	107	2,157	0	0	0
Oxygenated .....	0	0	0	0	0	0	0
Other .....	1,032	155,843	19,224	2,086	979	0	0
Finished Aviation Gasoline .....	173	507	221	0	0	0	0
Jet Fuel .....	438	30,181	1,772	0	0	0	97
Naphtha-Type .....	0	0	0	0	0	0	0
Kerosene-Type .....	438	30,181	1,772	0	0	0	97
Kerosene .....	133	1,029	194	0	0	0	0
Distillate Fuel Oil .....	4,324	39,444	9,409	489	0	0	0
0.05 percent sulfur and under .....	1,628	27,753	5,148	0	0	0	0
Greater than 0.05 percent sulfur .....	2,696	11,691	4,261	489	0	0	0
Residual Fuel Oil .....	1,430	14,009	19	0	0	0	0
Less than 0.31 percent sulfur .....	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur .....	0	64	0	0	0	0	0
Greater than 1.00 percent sulfur .....	1,430	13,945	19	0	0	0	0
Petrochemical Feedstocks <sup>a</sup> .....	50	0	378	0	0	0	0
Special Naphthas .....	0	1,019	1,004	0	0	0	0
Lubricants .....	3,876	4,568	3,321	282	0	0	542
Waxes .....	0	0	0	0	0	0	0
Asphalt and Road Oil .....	0	2,365	4,425	0	0	0	0
Miscellaneous Products .....	64	0	0	0	0	0	0
<b>Total .....</b>	<b>19,003</b>	<b>252,055</b>	<b>41,508</b>	<b>5,981</b>	<b>979</b>	<b>0</b>	<b>4,620</b>

<sup>a</sup> Includes naphthas less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.  
Source: Energy Information Administration (EIA) Form EIA-817, "Monthly Tanker and Barge Movement Report."

# Petroleum Supply Annual 1996

## Volume 1

June 1997

**Energy Information Administration**  
Office of Oil and Gas  
U.S. Department of Energy  
Washington, DC 20585

Finished motor gasoline product supplied (demand) for 1996 has been revised upward in the 1996 *Petroleum Supply Annual*. Data corrections received during the year from survey respondents, as well as the addition of a respondent who began importing significant amounts of motor gasoline in 1996, raised the overall gasoline demand growth rate to 1.3 percent.

Note: Annual refinery capacity data for January 1, 1995 and 1997 are now available on EIA's Home Page ([www.eia.doe.gov](http://www.eia.doe.gov)). Data are available in table format and database format (available for downloading).

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or reflecting any policy position of the Department of Energy or any other organization.

**Table 46. Refinery Receipts of Crude Oil by Method of Transportation by PAD District, 1996**  
(Thousand Barrels)

Method	PAD Districts					United States
	I	II	III	IV	V	
Pipeline						
Domestic .....	1,916	662,028	737,441	114,599	333,851	1,849,835
Foreign .....	22,444	518,271	302,731	41,804	37,758	923,008
Tanker						
Domestic .....	0	0	15,547	0	467,293	482,840
Foreign .....	451,431	0	1,258,019	0	104,526	1,813,976
Barge						
Domestic .....	1,812	363	76,969	0	4,820	83,764
Foreign .....	0	0	9,955	0	1,689	11,644
Tank Cars						
Domestic .....	4,590	0	1,396	54	0	6,040
Foreign .....	0	0	0	0	0	0
Trucks						
Domestic .....	4,249	11,266	30,039	14,936	9,002	69,492
Foreign .....	0	0	0	0	0	0
Total						
Domestic .....	12,367	673,657	861,392	129,589	814,986	2,491,971
Foreign .....	473,875	518,271	1,570,705	41,804	143,973	2,748,628

Source: Energy Information Administration (EIA), Form EIA-820, "Biennial Refinery Report."

# **Petroleum Supply Annual 1995**

**Volume 1**

**May 1996**

**Energy Information Administration**  
Office of Oil and Gas  
U.S. Department of Energy  
Washington, DC 20585

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or reflecting any policy position of the Department of Energy or any other organization.

Table 34. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, 1995  
(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	641	129	0	1,870	0	0	0	0
Petroleum Products	444	3,107	0	21,194	6,076	0	267,429	20,522
Liquefied Petroleum Gases	0	0	0	0	0	0	2,433	0
Unfinished Oils	196	0	0	242	439	0	31	0
Motor Gasoline Blending Components	10	730	0	0	205	0	3,509	367
Finished Motor Gasoline	85	598	0	10,185	990	0	181,215	14,339
Reformulated	0	0	0	0	0	0	12,861	9,565
Oxygenated	0	0	0	2,411	0	0	5,153	0
Other	85	598	0	7,754	990	0	143,201	4,774
Finished Aviation Gasoline	0	0	0	0	0	0	784	85
Jet Fuel	0	0	0	748	0	0	26,638	441
Naphtha-Type	0	0	0	0	0	0	0	0
Kerosene-Type	0	0	0	748	0	0	26,638	441
Kerosene	19	0	0	544	0	0	50	0
Distillate Fuel Oil	51	1,140	0	5,971	604	0	41,839	4,655
0.05 percent sulfur and under	38	485	0	2,559	496	0	24,326	911
Greater than 0.05 percent sulfur	13	655	0	3,402	108	0	18,012	3,744
Residual Fuel Oil	0	111	0	644	3,853	0	18,012	646
Less than 0.31 percent sulfur	0	111	0	6	0	0	996	252
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	560	394
Greater than 1.00 percent sulfur	0	0	0	636	3,553	0	16,434	0
Petrochemical Feedstocks <sup>a</sup>	83	0	0	45	77	0	127	0
Special Naphthas	0	369	0	0	0	0	1,310	0
Lubricants	0	159	0	807	109	0	8,949	9
Waxes	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	1,938	108	0	2,461	0
Miscellaneous Products	0	0	0	0	0	0	73	0
Total	1,085	3,236	0	23,064	6,076	0	267,429	20,522

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	0	0	0	0	0	0	17,815
Petroleum Products	18,631	228,276	44,553	758	331	0	2,066
Liquefied Petroleum Gases	0	2,433	0	0	0	0	0
Unfinished Oils	0	31	1,320	0	0	0	0
Motor Gasoline Blending Components	2,661	491	559	0	0	0	207
Finished Motor Gasoline	6,087	140,789	17,451	273	331	0	1,823
Reformulated	2,967	329	863	16	0	0	120
Oxygenated	136	5,015	50	0	0	0	0
Other	2,582	135,445	16,738	255	331	0	1,703
Finished Aviation Gasoline	166	553	209	0	0	0	0
Jet Fuel	411	25,784	3,417	0	0	0	0
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	411	25,784	3,417	0	0	0	0
Kerosene	0	50	370	0	0	0	0
Distillate Fuel Oil	3,133	34,051	11,148	385	0	0	0
0.05 percent sulfur and under	505	23,510	5,877	0	0	0	0
Greater than 0.05 percent sulfur	2,628	10,541	5,271	385	0	0	0
Residual Fuel Oil	655	16,511	613	0	0	0	0
Less than 0.31 percent sulfur	740	6	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	186	208	0	0	0	0
Greater than 1.00 percent sulfur	115	16,319	605	0	0	0	0
Petrochemical Feedstocks <sup>a</sup>	127	0	203	0	0	0	0
Special Naphthas	203	1,107	1,022	100	0	0	0
Lubricants	4,714	4,225	3,300	0	0	0	36
Waxes	0	0	0	0	0	0	0
Asphalt and Road Oil	235	2,226	4,723	0	0	0	0
Miscellaneous Products	59	34	18	0	0	0	0
Total	18,631	228,276	44,553	758	331	0	19,881

<sup>a</sup> Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.  
Source: Energy Information Administration (EIA) Form EIA-817, "Monthly Tanker and Barge Movement Report."

# **Petroleum Supply Annual 1998**

## **Volume 1**

**June 1999**

**Energy Information Administration**  
Office of Oil and Gas  
U.S. Department of Energy  
Washington, DC 20585

This report is available on the WEB at:

[http://www.eia.doe.gov/oil\\_gas/petroleum/data\\_publications/petroleum\\_supply\\_annual/psa\\_volume1/psa\\_volume1.html](http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_supply_annual/psa_volume1/psa_volume1.html)

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or reflecting any policy position of the Department of Energy or any other organization.

**Table 47. Fuel Consumed at Refineries by PAD District, 1998**  
(Thousand Barrels, Except Where Noted)

Commodity	PAD Districts					United States
	I	II	III	IV	V	
<b>1998</b>						
Crude Oil .....	0	0	2	0	1	3
Liquefied Petroleum Gases .....	258	1,759	405	102	1,119	3,643
Distillate Fuel Oil .....	223	88	165	0	285	761
Residual Fuel Oil .....	2,824	2,842	0	282	581	6,529
Still Gas .....	19,139	49,334	116,192	7,238	46,602	238,505
Marketable Petroleum Coke .....	1,209	171	70	152	1,024	2,626
Catalyst Petroleum Coke .....	11,479	17,750	40,852	2,452	13,447	85,980
Natural Gas (million cubic feet) .....	37,737	94,628	607,868	16,863	116,654	873,750
Coal (thousand short tons) .....	31	5	0	0	0	36
Purchased Electricity (million kWh) .....	3,187	9,041	13,871	1,417	5,071	32,587
Purchased Steam (million pounds) .....	3,415	4,109	5,525	803	17,381	31,233
Hydrogen (million cubic feet) .....	0	0	0	0	0	0
Other Products <sup>a</sup> .....	364	1,649	1,991	687	1,268	5,959

Note: Includes volumes used as fuel at refineries and all nonprocessing losses of crude oil and petroleum products (e.g., spills, fire losses, contamination, etc.)

<sup>a</sup>Includes pentanes plus, other hydrocarbons, oxygenates, unfinished oils, gasoline, special naphthas, jet fuel, lubricants, asphalt, road oil, and miscellaneous products.

Sources: 1995: Energy Information Administration (EIA), Form EIA-810, "Monthly Refinery Report." 1996: Form EIA-820, "Biennial Refinery Report" and Form EIA-810.

# **Petroleum Supply Annual 1999**

**Volume 1**

**June 2000**

**Energy Information Administration**  
Office of Oil and Gas  
U.S. Department of Energy  
Washington, DC 20585

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This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or reflecting any policy position of the Department of Energy or any other organization.

**Table 46. Refinery Receipts of Crude Oil by Method of Transportation by PAD District, 1999**  
(Thousand Barrels)

Method	PAD Districts					United States
	I	II	III	IV	V	
Pipeline						
Domestic .....	1,946	589,276	719,569	111,509	345,943	1,768,243
Foreign .....	23,462	619,466	277,925	58,451	30,698	1,010,002
Tanker						
Domestic .....	0	0	434	0	337,219	337,653
Foreign .....	505,704	0	1,444,087	0	178,626	2,128,417
Barge						
Domestic .....	1,089	208	61,182	0	1,782	64,261
Foreign .....	24,635	0	34,808	0	12,624	72,067
Tank Cars						
Domestic .....	4,129	0	1,502	0	2,787	8,418
Foreign .....	0	0	0	0	0	0
Trucks						
Domestic .....	4,194	9,161	22,634	11,750	10,101	57,840
Foreign .....	0	0	0	0	0	0
Total						
Domestic .....	11,356	598,645	805,321	123,259	697,832	2,236,415
Foreign .....	553,801	619,466	1,756,820	58,451	221,948	3,210,486

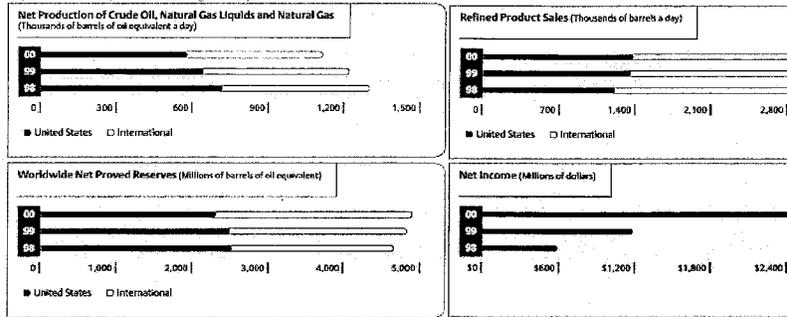
Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

**Financial Highlights**

(Millions of dollars, except per share amounts in dollars and ratio data)	2000	1999	1998
Revenues	\$ 51,130	\$ 35,691	\$ 33,800
Income before special items and cumulative effect of accounting change	\$ 2,898	\$ 1,214	\$ 1,177
Diluted per common share	\$ 5.31	\$ 2.21	\$ 2.14
Return on average capital employed	16.2%	8.3%	8.1%
Net income	\$ 2,542	\$ 1,177	\$ 1,177
Diluted per common share	\$ 4.65	\$ 2.14	\$ 2.14
Return on average capital employed before cumulative effect of accounting change	14.5%	8.1%	8.1%
Capital and exploratory expenditures	\$ 4,234	\$ 3,893	\$ 3,893
Per common share			
Common stockholders' equity	\$ 24.30	\$ 21.59	\$ 21.59
Market price at year end	\$ 62.13	\$ 54.31	\$ 54.31
Cash dividends paid	\$ 1.80	\$ 1.80	\$ 1.80
Return on average stockholders' equity before cumulative effect of accounting change	20.1%	10.0%	10.0%
Total debt to total borrowed and invested capital	33.7%	37.5%	37.5%

**Operational Highlights**

(for a closer look, click on the image below)



TOP ▲

**TEXACO REPORTS FIRST QUARTER 2001 RESULTS****FOR IMMEDIATE RELEASE: THURSDAY, APRIL 26, 2001**

WHITE PLAINS, N.Y., April 26, 2001 -- Texaco reported today first quarter 2001 income before special items of \$836 million (\$1.54 per share). Net income for the period was \$833 million (\$1.53 per share).

**Earnings Summary**

	First Quarter	
	2001	2000
Income before special items (millions)	\$ 836	\$ 602
Per Share	\$1.54	\$1.10
Net Income (millions)	\$ 833	\$ 574
Per Share	\$1.53	\$1.05

Chairman and Chief Executive Officer Glenn Tilton commented, "Our outstanding first quarter results follow our record fourth quarter and mark the third consecutive quarter that earnings surpassed \$800 million. Propelled by strong worldwide crude oil and U.S. natural gas prices, our upstream results were their ever. Operationally, we exceeded our production target for the quarter and made excellent progress on our major development projects. In the Philippines, the topsides of the Malampaya project platform were set and we remain on target for first production in the fourth quarter with first delivery of gas in January 2002. In the U.K. North Sea we are drilling new producing wells at the Captain B expansion project which will ramp up field production this year by 25,000 barrels per day by the third quarter.

"We also continue to progress our high-impact international deepwater exploration program. In Nigeria, the Agbami 3 well successfully appraised the west end of the field extending its areal limits. In Brazil, our drilling program began with the drilling of two of five planned exploration wells.

"Downstream earnings were mixed. While refining margins improved in some areas, including the U.S. East and Gulf Coasts where Motiva operates, high utility costs and tight margins burdened refining results elsewhere. Competitive pressures in all regions, especially the U.S. West Coast, caused lower retail marketing results as these operations were unable to fully recover product supply costs."

Commenting on Texaco's proposed merger with Chevron, Tilton added, "We continue to make good progress toward the completion of our proposed merger with Chevron. In February, our companies announced the leadership team and high-level organization structure for the post-merger company. The European Commission has given its approval of the merger without conditions. The U.S. Federal Trade Commission continues its review."

	First Quarter	
	2001	2000
Texaco Inc. (Millions of dollars):		
Income before special items	\$ 836	\$ 602
Net losses on major asset sales	-	(67)
Tax issue	-	46
Litigation issue	-	(13)
Employee related costs	-	6
Merger costs	(3)	-
Special items	(3)	(28)

Net income	\$ 833	\$ 574
	=====	=====

Details on special items are included in the following segment information.

#### OPERATING RESULTS

##### EXPLORATION AND PRODUCTION

	First Quarter	
United States (Millions of dollars):	2001	2000
Operating income before special items	\$ 589	\$ 361
Special items	-	(67)
Total operating income	\$ 589	\$ 294
	=====	=====

U.S. Exploration and Production earnings for the first quarter of 2001 were significantly higher than last year due to higher natural gas prices. U.S. natural gas prices reached historic levels during the first quarter, reflecting low inventories and strong demand. Texaco's average realized natural gas price was \$7.14 per thousand cubic feet (MCF) during the first quarter, 191 percent higher than last year.

Texaco's average realized crude oil price was \$24.31 per barrel for the first quarter, down slightly from last year. Crude oil prices continue to react to changes in global demand, production levels and petroleum inventories which remain lean.

Daily production for the first quarter of 2001 was 534,000 barrels of oil equivalent per day, 12 percent lower than last year. More than half of this expected reduction was due to last year's sales of non-core producing properties. The balance of the decrease was due to natural field declines and lower production in our California fields as we economically reduced steam production due to high natural gas prices.

Operating expenses were 13 percent higher in the first quarter as natural gas prices led to significantly higher utilities expenses and production taxes. Exploratory expenses for the quarter were \$33 million tax, \$14 million higher than last year.

Results for the first quarter of 2000 included a special charge of \$67 million for net losses on the sales of non-core producing properties.

	First Quarter	
International (Millions of dollars):	2001	2000
Operating income before special items	\$ 243	\$ 293
Special items	-	-
Total operating income	\$ 243	\$ 293
	=====	=====

International Exploration and Production operating results for the first quarter of 2001 were lower than last year due to decreased production volumes and lower crude oil sales volumes. Daily production was 564,000 barrels of oil equivalent per day in the first quarter 2001, down three percent or 17,000 barrels per day from last year. Last year's sales of non-core producing properties caused a decrease of 40,000 barrels per day or seven percent. Partly offsetting this decrease were higher lifting entitlements in Indonesia as a

result of lower crude oil prices and increased production in the Karachaganak field in the Republic of Kazakhstan and in the Partitioned Neutral Zone. However, crude oil sales volumes were lower than last year due to the timing of liftings in the North Sea.

Market conditions kept natural gas prices strong throughout the first quarter, while crude oil prices receded slightly. Texaco's average realized crude oil price for the first quarter was \$21.61 per barrel, down seven percent from last year. Our average realized natural gas price was \$2.00 per MCF in the first quarter, up 35 percent from last year.

Operating expenses decreased 12 percent in the first quarter due to the sales of non-core producing properties. Exploratory expenses for the first quarter were \$16 million before tax, \$18 million lower than last year.

#### REFINING, MARKETING AND DISTRIBUTION

	First Quarter	
United States (Millions of dollars):	2001	2000
Operating income before special items	\$ 38	\$ 13
Special items	-	5
Total operating income	\$ 38	\$ 18
	====	====

U.S. Refining, Marketing and Distribution earnings improved as compared with the extremely low results in 2000.

Motiva's earnings for the first quarter benefited from significantly higher refining margins in an environment of tight supplies and industry refinery maintenance, although higher utilities expense and scheduled maintenance at the Port Arthur refinery reduced those earnings. While refining results improved, marketing margins were negatively impacted by higher supply costs, which were not fully recovered in the market.

First quarter earnings for Equilon improved due to substantially higher refining margins and improved refinery operations. Earnings also benefited from higher utilization of proprietary pipelines, higher lubricant margins and improved trading results. These improvements were negatively impacted by extremely high West Coast utilities expense. Also, marketing earnings for Equilon declined from last year due to depressed fuel marketing margins as pump prices lagged increases in supply costs in a very competitive market. This was especially true in the Los Angeles area where retail fuel margins were under intense pressure.

Results for the first quarter of 2000 included net special benefits of \$5 million comprised of a benefit of \$18 million for an employee benefits revision and a charge of \$13 million for a patent litigation issue.

	First Quarter	
International (Millions of dollars):	2001	2000
Operating income before special items	\$ 88	\$ 63
Special items	-	(12)
Total operating income	\$ 88	\$ 51
	====	====

International Refining and Marketing earnings for the first quarter of 2001 increased from last year. Earnings improved in the Asia Pacific area due to higher marketing margins from lower product acquisition costs and higher trading results.

Operating results for the first quarter of 2001 decreased in Europe from last year due to weak markets, particularly in the U.K. Decreased margins in both refining and marketing operations resulted from our inability to recover higher supply costs in the marketplace. Results in Latin America were in line with last year with improved refining earnings but lower marketing results.

Results for the first quarter of 2000 included a special charge of \$12 million for employee separation costs.

#### GLOBAL GAS, POWER AND ENERGY TECHNOLOGY

	First Quarter	
(Millions of dollars):	2001	2000
Operating income before special items	\$ 5	\$ 20
Special items	-	-
Total operating income	\$ 5	\$ 20
	====	====

Results for the first quarter of 2001 were lower than last year. This year's results include higher costs and expenses for a new gasification project in Singapore. Results were also negatively impacted by higher fuel expense for the cogeneration facilities. In our U.S. natural gas trading operations, significantly improved natural gas margins and trading results were reduced by lower NGL margins.

#### CORPORATE/NON-OPERATING RESULTS

	First Quarter	
(Millions of dollars):	2001	2000
Operating income before special items	\$ (124)	\$ (148)
Special items	(3)	46
Total operating income	\$ (127)	\$ (102)
	====	====

Corporate and non-operating results for the first quarter of 2001 benefited from lower interest expense and lower advertising and sales promotion expenses.

Results for the first quarter of 2001 included a special charge of \$3 million for costs associated with the proposed merger with Chevron. Results for 2000 included special benefits of \$46 million for favorable income tax settlements.

#### CAPITAL AND EXPLORATORY EXPENDITURES

Capital and exploratory expenditures were \$761 million for the first quarter of 2001, compared with \$724 million for 2000.

Total upstream expenditures increased more than 19 percent over 2000 levels as we continued to focus resources on high impact projects. Internationally, development work continued in the Malampaya natural gas project in the Philippines, the Agbami field offshore Nigeria and the Hamaca heavy oil project in Venezuela. In Kazakhstan, development work also continued in the Karachaganak and North Buzachi fields. In the U.S., spending focused on drilling and workover activity in the Gulf and Permian regions.

Downstream expenditures in the U.S. were in line with the prior year, while international activity reflected a slowing in marketing spending. Global Gas, Power and Energy Technology spending is lower than last year due to project completions in Thailand, Korea and Singapore.

Note: This press release contains a number of forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. In particular, statements made concerning Texaco's expected performance and financial results in future periods are based upon Texaco's current expectations and beliefs and are subject to a number of known and unknown risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. The following factors known to Texaco, among others, could cause Texaco's actual results to differ materially from those described in the forward-looking statements: decreased demand for motor fuels, natural gas and other products; worldwide and industry economic conditions; inaccurate forecasts of crude oil, natural gas and petroleum product prices and production; higher costs, expenses and interest rates; the possibility that the merger with Chevron will not be consummated; the possibility that the anticipated benefits from the merger such as cost reductions will not be fully realized; the process of, or conditions imposed in connection with, obtaining regulatory approvals for the merger; etc. In addition, you are encouraged to review Texaco's latest reports filed with the SEC, including Texaco's Annual Report on Form 10-K filed with the SEC on March 26, 2001, which describes a number of additional risks and uncertainties that could cause actual results to vary materially from those listed in the forward-looking statements made in this press release.

Income (loss) (Millions of dollars)	First Quarter (a)	
	2001	2000
Exploration and production		
United States	\$ 589	\$ 294
International	243	293
Total	832	587
Refining, marketing and distribution		
United States	38	18
International	88	51
Total	126	69
Global gas, power and energy technology	5	20
Total operating segments	963	676
Other business units	(3)	-
Corporate/Non-operating	(127)	(102)
Net income	\$ 833	\$ 574
Net income per common share (dollars) - diluted	\$1.53	\$1.05
Average number of common shares outstanding for computation of earnings per share (millions) - diluted	543.0	545.5
Provision for income taxes included in net income	\$ 568	\$ 363

(a) Includes special items indicated in this release.

Other Financial Data (Millions of dollars)	First Quarter	
	2001	2000
Revenues	\$ 14,134	\$ 11,271
Total assets as of March 31	\$ 32,200(b)	\$ 29,415
Stockholders' equity as of March 31	\$ 14,100(b)	\$ 12,374
Total debt as of March 31	\$ 6,900(b)	\$ 7,415
Capital and exploratory expenditures		
Exploration and production		
United States	\$ 214	\$ 175
International	417	353
Total	631	528
Refining, marketing and distribution		
United States	63	65
International	52	100
Total	115	165
Global gas, power and energy technology	12	28
Total operating segments	758	721
Other business units	3	3
Total	\$ 761	\$ 724
Exploratory expenses (c)		
United States	\$ 33	\$ 19
International	16	34
Total	\$ 49	\$ 53
Dividends paid to common stockholders	\$ 243	\$ 245
Dividends per common share (dollars)	\$ .45	\$ .45
Dividend requirements for preferred stockholders	\$ 3	\$ 3

(b) Preliminary

(c) Includes prior years' exploratory expenditures expensed in the

Operating Data	First Quarter	
	2001	2000
current year		
Exploration and production		
United States		
Net production of crude oil and natural gas liquids (MBPD)	325	377
Net production of natural gas available for sale (MMCFPD)	1,255	1,361
Total net production (MBOEPD)	534	604
Natural gas sales (MMCFPD)	4,627	3,394
Average U.S. crude (per bbl.)	\$24.31	\$24.46
Average U.S. natural gas (per mcf)	\$ 7.14	\$ 2.45
Average WTI (Spot) (per bbl.)	\$28.72	\$28.91
Average Kern (Spot) (per bbl.)	\$19.89	\$22.84
International		
Net production of crude oil and natural gas liquids (MBPD)		
Europe	119	144
Indonesia	133	124
Partitioned Neutral Zone	147	135
Other	55	70
Total	454	473
Net production of natural gas available for sale (MMCFPD)		
Europe	267	289
Colombia	202	208
Other	188	152
Total	657	649
Total net production (MBOEPD)	564	581
Natural gas sales (MMCFPD)	673	685

Average International crude (per bbl.)	\$21.61	\$23.32
Average International natural gas (per mcf)	\$ 2.00	\$ 1.48
Average U.K. natural gas (per mcf)	\$ 3.63	\$ 2.63
Average Colombia natural gas (per mcf)	\$ 1.40	\$ .94
Total worldwide net production (MBOEPD)	1,098	1,185
Operating Data	First Quarter	
	-----	-----
	2001	2000
	-----	-----
Refining, marketing and distribution		
United States		
Refinery input (MBPD)		
Equilon area	198	277
Motiva area	309	265
Total	507	542
Refined product sales (MBPD)		
Equilon area	651	690
Motiva area	416	341
Other	375	292
Total	1,442	1,323
International		
Refinery input (MBPD)		
Europe	365	364
Caltex area	365	346
Latin America/West Africa	66	52
Total	796	762
Refined product sales (MBPD)		
Europe	584	635
Caltex area	523	580
Latin America/West Africa	519	448
Other	163	95
Total	1,789	1,758

Last update 04/26/2001  
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## Press Release – Financial

## Chevron Reports Net Income of \$1.5 Billion in Fourth Quarter for 2000

SAN FRANCISCO, Jan. 24 -- Chevron Corp. (NYSE: CHV) today reported net income of \$1.494 billion (\$2.32 per share - diluted) for fourth quarter 2000, compared with fourth quarter 1999 net income of \$809 million (\$1.23 per share - diluted). Excluding net charges of \$49 million for special items in the 2000 quarter, net income was \$1.543 billion (\$2.39 per share diluted), nearly 90 percent higher than the \$819 million (\$1.23 per share - diluted) reported in the fourth quarter of 1999.

## Earnings Summary

Millions of Dollars	Fourth Quarter		2000
	2000	1999	
Operating Earnings			
Exploration and Production	\$1,263	\$827	\$4,518
Refining, Marketing and Transportation	336	(6)	89
Chemicals and Other	(56)	(2)	(2)
Total*	1,543	819	5,415
Special Items	(49)	(10)	(25)
Net Income*	\$1,494	\$809	\$5,188
*Includes Foreign Currency (Losses) Gains	\$ (8)	\$10	\$14

For the full year, Chevron reported record net income of \$5.185 billion (\$3.47 per share - diluted), compared with 1999 net income of \$2.070 billion (\$2.86 per share - diluted). Operating earnings were \$5.437 billion (\$8.35 per share - diluted), compared with \$2.286 billion (\$3.47 per share - diluted) in 1999.

Chairman and CEO Dave O'Reilly commented, "Another strong operating performance in the fourth quarter capped the most profitable year in our history. Record earnings pushed our rate of return on capital employed to 20 percent. Our financial success in 2000 has enabled us to significantly strengthen our balance sheet, including a reduction in debt of \$2.7 billion and the repurchase of 100 million common shares. We ended the year with an improved debt ratio of 35 percent."

"I am particularly pleased with the performance of our exploration and production activities, which contributed \$1.26 billion to fourth quarter earnings."

businesses around the world," O'Reilly said. "Although this sector b higher prices for both crude oil and natural gas, earnings were furth higher production. And setting the stage for future years, we added reserves during 2000 that equated to more than 150 percent of the equivalent production. These production and reserve-addition succ direct results of our long-term international upstream growth strateg excellence of our technical staffs in capital project selection and ex noted that 2000 marked the eighth consecutive year the company's exceeded production.

Commenting on the company's refining and marketing operations, C "Financial results for our U.S. downstream business rebounded in tl the year, as refined product price increases offset the higher costs c feedstocks. Downstream earnings in the United States in the fourth significantly higher than the year-ago quarter -- the result of improv West Coast refineries and stronger margins for jet fuel, diesel fuel a gasoline. On the international side, however, financial results for ou remained depressed throughout the year, as the very competitive e Asia-Pacific area continues to severely dampen marketing margins.

For oil and gas producing operations, the average U.S. crude oil re per barrel was up 33 percent from the 1999 fourth quarter. The U.S realization for the quarter increased to \$5.86 per thousand cubic fee \$2.49 in the 1999 quarter. Chevron's worldwide oil-equivalent produ volumes produced under operating service agreements, was up ab the year-ago quarter and for the year. The production increase for 2 would have been about 5 percent -- higher than the targeted growt percent -- after adjusting for the effect of higher prices on Chevron's production under certain variable royalty arrangements and product contracts outside the United States.

Operating expense per barrel in 2000 for the company's worldwide increased \$0.89 to \$6.06. Most of the rise was attributable to higher associated with higher crude oil and natural gas prices -- for the cor and other facilities, along with higher tanker chartering rates and int transportation requirements.

Looking ahead, O'Reilly said, "Given the accomplishments of our er record profits in 2000, I am excited about the year to come. As we s financial position is very strong, and our focus on operational excell reduction, capital stewardship and profitable growth remains steadf robust \$6 billion capital spending program scheduled for 2001 that v capitalize upon our portfolio of world-class, global investment oppor will be working closely with regulatory agencies to obtain approval c merger with Texaco -- a merger that will significantly benefit the she customers of both companies. Since the October announcement of teams from both companies, as well as from our jointly-owned Calte made excellent progress in developing plans for the integration of th organizations."

Commenting on industry conditions, O'Reilly added, "Energy issues production levels, regional natural gas availability and electricity supply received much attention in recent months. As a result, I believe many in the industry have a newfound appreciation for the importance of the energy sector in today's economies. To that end, we at Chevron are firmly committed to operating wisely -- and operating safely -- in doing our part to deliver the work for years to come."

O'Reilly highlighted some of the significant events for the company during the third quarter, including:

- **Tengiz:** Tengizchevroil's (TCO) total gross crude oil production reached 280,000 barrels per day for the quarter -- a record and exceeded 260,000 barrels per day -- as a result of the processing plant's absence of turnaround work. For 2001, average gross production will be about 260,000 barrels per day, considering the effect of plant maintenance and other operational activities. In early January, Chevron closed on its purchase of an additional 5 percent stake, bringing the company's ownership interest to 50 percent.
- **Caspian Pipeline:** Construction of a pipeline by the Caspian Pipeline Consortium (CPC), in which Chevron owns a 15 percent interest, is on schedule for a mid-2001 start-up. In the fourth quarter, CPC completed the laying of new pipe in Russia. The pipeline will connect the Tengiz field in western Kazakhstan to the Black Sea port of Novorossiysk. Chevron has spent \$1 billion to date or about 70 percent of the project budget.
- **Angola:** Chevron announced a significant new oil discovery in Block 14, where the company is operator and has 31 percent ownership. The well was the sixth major discovery by Chevron in Block 14. The Lobito field was confirmed in December by a successful appraisal. Geologic and engineering studies are required to fully evaluate the field, which lies near the Kuito, Benguela, Belize and Tomboco fields.
- **Chad-Cameroon:** Chevron, with a 25 percent interest, and its partners are developing the Doba oil fields in southern Chad and a 650-mile pipeline from the fields to the coast of Cameroon. First production is expected in 2004.
- **Nigeria:** Chevron was awarded interests in three deepwater oil licenses (OPL) offshore Nigeria. Chevron, with a 50 percent interest, is operator of OPL 250. The company also was awarded 30 percent operating interests in OPL 214 and OPL 318.
- **Thailand:** The government of Thailand approved Chevron's plan for the development of North Jarmjeree, a 200-square-mile offshore field located in Block B8/32, about 125 miles from Bangkok in the Andaman Sea. North Jarmjeree is the fourth production area granted to Chevron in Thailand, which also includes the Tantawan, Benchamas and Maliwan fields. Chevron is operator and holds a 52 percent interest in Block B8/32.

- Canada: Chevron, as operator with a 43 percent interest, and production of natural gas from a second well at Fort Liard, No Combined production from the two wells at Ft. Liard is expected about 105 million cubic feet of raw natural gas per day in 2001 consideration to planned downtime for maintenance. Chevron the formation of partnerships with two other Canadian oil and participate jointly in the exploration of about one million acres Delta, Northwest Territories.
- U.S. Gulf of Mexico: Two additional fields in the Viosca Knoll ( began producing a combined 106 million cubic feet of natural November 2000. A combined peak production rate from the tv other fields in the trend reached 239 million cubic feet of natur nearly 20 percent higher than the target volume. The addition fields triples production from the area's 1999 level. Chevron is contiguous leaseholder in the Carbonate Trend, holding a maj leases.
- Worldwide Oil and Gas Reserves: The company added 875 m oil-equivalent reserves during 2000, or 152 percent of product Included were over 125 million barrels of reserves each for the Kazakhstan and the Chad acquisition. More than 175 million t amount were the result of successful discoveries in areas that Thailand, Argentina, Nigeria, Angola, the United Kingdom and Mexico Shelf.

Special items in fourth quarter 2000 net income included charges for downs, environmental remediation and prior-years' tax adjustments were partially offset by gains associated with insurance recoveries f property damage, LIFO inventory valuation adjustments, actuarial c company's benefit plans, and the equity accounting effect of the iss additional common stock by Chevron's Dynegy equity affiliate.

Foreign currency losses included in fourth quarter 2000 net income compared with gains of \$10 million in 1999. For the year 2000, forei were \$142 million, compared with losses of \$38 million in the 1999 ; most of 2000, the U.S. dollar strengthened against the currencies o countries -- particularly Australia, the United Kingdom, Norway, Car countries in the Caltex operating area

- before weakening late in the year. Fourth quarter 2000 revenu income of \$13.5 billion were 23 percent higher than \$11.0 billi fourth quarter. Total revenues and other income for 2000 were 42 percent from \$36.6 billion in 1999. Revenues and other inc primarily on sharply higher prices for crude oil, natural gas an These increases were partially offset by the absence of sales second half of 2000 from a large portion of the company's che following the July 1 formation of the Chevron Phillips Chemica which is accounted for under the equity method.

## EXPLORATION AND PRODUCTION

## U.S. Exploration and Production

Millions of Dollars	Fourth Quarter		
	2000	1999	2000
Operating Earnings	\$614	\$330	\$1,910
Special Items	--	(195)	(100)
Net Income	\$614	\$135	\$1,810

U.S. exploration and production operating earnings rose significantly in the fourth quarter and full year, primarily the result of higher prices for crude oil and natural gas. Natural gas equivalent production was down slightly in both periods. Expenses were higher in both periods, mainly for well write-offs, depreciation and operating expenses. Operating earnings were also associated with higher fuel costs. Gains from property sales were higher in the fourth quarter and full year 2000 compared with the 1999 periods.

For the fourth quarter 2000, the company's average crude oil realization per barrel was up 33 percent from the year-ago quarter; the average natural gas realization of \$5.86 per thousand cubic feet increased significantly from \$4.36 per thousand cubic feet in last year's quarter. For the full year 2000, the average crude oil realization was \$27.20 per barrel, an increase of nearly 70 percent compared with 1999. The annual average natural gas realization of \$5.86 per thousand cubic feet for 2000 rose nearly 90 percent over 1999.

Net liquids production for the fourth quarter 2000 averaged 312,000 barrels per day, down 12,000 barrels per day from 1999. Fourth quarter 2000 net natural gas production averaged 1.594 billion cubic feet per day, up 1 percent from 1999. On a total oil-equivalent basis, new and enhanced production and other areas of the Gulf of Mexico was more than offset by the effects of property sales and normal field declines, resulting in an overall production decline of 1 percent from the year-ago quarter and 3 percent on an annual basis.

## International Exploration and Production

Millions of Dollars	Fourth Quarter		
	2000	1999	2000
Operating Earnings*	\$649	\$497	\$2,600
Special Items	2	(63)	(100)
Net Income*	\$651	\$434	\$2,500

\*Includes Foreign Currency (Losses) Gains

International exploration and production earnings were about 30 percent higher in the fourth quarter 2000 and more than double the 1999 annual results. This was mainly reflected higher prices and production for crude oil and natural gas.

Net liquids production increased 4 percent to 880,000 barrels per day in the fourth quarter 2000.

quarter 2000. Production increases in Kazakhstan and Angola, combined with increased production from properties acquired last year in Argentina, partially offset declines in Indonesia and Colombia. The lower production in 2000 was primarily associated with the effect of higher prices on cost-oil recovery under a production-sharing agreement. The 1999 fourth quarter included 1,317,000 barrels per day of production under a joint venture agreement in Congo that expired early in 2000. For the full year, net liquids production rose 4 percent to 847,000 barrels per day. Including production under various operating agreements, annual production increased nearly 7 percent to 970,000 barrels per day.

Fourth quarter 2000 net natural gas production increased 3 percent to 927 million cubic feet per day. Increases from the properties acquired in 1999 in Thailand and Argentina, and higher production from Nigeria, were partially offset by a decrease in Australian production. For the full year, net natural gas production increased 4 percent to 911 million cubic feet per day. Increases in production from Thailand, Argentina, Tengiz and Niger were partially offset by a production decline in Canada.

Earnings for the 2000 fourth quarter included net foreign currency gains of \$11 million, compared with gains of \$11 million in 1999. On an annual basis, net foreign currency gains included net foreign currency gains of \$81 million in 2000 and net foreign currency gains of \$81 million in 1999.

#### REFINING, MARKETING AND TRANSPORTATION

##### U.S. Refining, Marketing and Transportation

Millions of Dollars	Fourth Quarter		2000
	2000	1999	
Operating Earnings	\$296	\$73	\$71
Special Items	(12)	(4)	(2)
Net Income	\$284	\$69	\$54

Operating earnings for the fourth quarter 2000 increased significantly from the fourth quarter 1999, mainly on higher refined product margins for jet fuel, diesel and motor gasoline. Offsetting the margin improvement were higher operating costs, primarily refinery fuel costs -- and lower business interruption insurance. Earnings for the full year likewise improved on higher margins, with operating costs offsetting the effect from higher refinery fuel costs. Also contributing to the increase were improved refinery operations, substantially reducing the need to purchase high-cost refined products to fulfill supply commitments.

The average refined product sales realization of \$41.72 per barrel in the fourth quarter increased 34 percent from the corresponding 1999 period. Full year average realization was up 46 percent to \$39.29. Refined product sales for the fourth quarter and full year increased 2 percent to 1,317,000 and 1,317,000 barrels per day, respectively. Gasoline sales were flat in the fourth quarter and full year. The branded gasoline sales component was also flat in each period. Fourth quarter 1999 sales included the effect of

anticipation of possible Y2K-related interruptions.

#### International Refining, Marketing and Transportation

Millions of Dollars	Fourth Quarter		2000
	2000	1999	
Operating Earnings			200
(Losses)*	\$40	\$(79)	\$11
Special Items	(12)	26	(1)
Net Income (Losses)*	\$28	\$(53)	\$10
*Includes Foreign			
Currency Gains			
(Losses)	\$4	\$(6)	\$1

International refining, marketing and transportation operating earnings were primarily from Chevron's interest in Caltex Corporation, international supply activities, Canadian downstream, and international shipping operations. Operating earnings were adjusted for foreign currency effects in all periods and \$76 million of inventory and other adjustments recorded in early 1999, operating earnings were \$109 million between the fourth quarters and \$48 million for the full year.

As adjusted, operating earnings for each business activity in the segment declined in the fourth quarter. Refined product margins improved, as crude oil prices were late in the 2000 fourth quarter fell faster than product realizations. Higher charter rates pushed shipping earnings higher.

For the full year on an adjusted basis, all components of the segment's operating earnings, except for Caltex. Earnings for Caltex suffered from a very difficult operating environment in the Asia-Pacific region.

Total downstream sales volumes in the 2000 fourth quarter were 80 million barrels per day, down about 3 percent from the corresponding 1999 period on a like-for-like trading volumes. Sales volumes for the full year declined about 8 percent from 1999. Sales volumes for 1999 included sales by a Caltex subsidiary sold in the third quarter 1999.

#### CHEMICALS

Millions of Dollars	Fourth Quarter		2000
	2000	1999	
Operating (Losses)			200
Earnings*	\$(25)	\$73	\$11
Special Items	(78)	(5)	(1)
Net (Losses)			
Income*	\$(103)	\$68	\$10
*Includes Foreign			
Currency Gains			
(Losses)	\$2	\$4	\$1

Operating earnings for the worldwide chemicals segment declined in the fourth quarter.

quarter and for the full year. Commodity chemicals businesses continued in 2000 from generally weak product demand and high raw material costs.

The 2000 quarter included special charges for additions to environmental reserves and for Chevron's 50 percent share of a write-down of assets by Chevron Phillips Chemical Co. These charges were partially offset by gains from benefit plans, as a result of employees terminating employment with Chevron and joining the Chevron-Phillips joint venture company.

#### ALL OTHER

Millions of Dollars	Fourth Quarter		2000
	2000	1999	
Net Operating Charges*	\$ (31)	\$ (75)	\$ (11)
Special Items	51	231	11
Net Income (Loss)*	\$20	\$156	\$166

\*Includes Foreign Currency (Losses) Gains

	\$ (4)	\$1	\$ (3)
--	--------	-----	--------

All Other consists of coal mining operations, the company's ownership of Dynegy Inc., worldwide cash management and debt financing activities, administrative costs, insurance operations and real estate activities.

Chevron's share of Dynegy operating earnings increased by \$16 million in the fourth quarter due to higher prices for natural gas and natural gas liquids and higher earnings from power generation activities. Earnings from coal operations were marginally higher, compared with last year's quarter.

Net charges from other activities declined by \$30 million in the fourth quarter, largely attributable to higher interest income and lower interest expense as a result of stronger cash flows and lower debt levels -- and other net benefits from corporate-level adjustments. These benefits were partially offset by unfavorable items recorded in the 1999 fourth quarter for the Cities Service insurance recoveries.

For the full year, net operating charges were less than half the amount recorded in 1999. Higher earnings from Dynegy were partially offset by lower earnings from coal operations, as a result of the effects of work stoppages for several quarters in 2000. The current year also benefited from higher interest income and lower interest expense.

The net benefit from special items in the fourth quarter 2000 consisted of the equity accounting effect of common stock transactions of the Dynegy joint venture, partially offset by an unfavorable prior years' income tax adjustment.

#### Capital and Exploratory Expenditures

Capital and exploratory expenditures, including the company's share of Dynegy, were \$1.1 billion in 2000, compared with \$1.2 billion in 1999.

expenditures, were \$5.2 billion for 2000, compared with \$6.1 billion period. Expenditures for worldwide exploration and production activ 62 percent of the company's total spending for 2000. In businesses upstream segment, investments in Dynegy and the Caspian Pipelin represented about 12 percent of the company's total expenditures f Expenditures in last year's period included the acquisition of Ruther Corp. and an additional interest in Block B8/32 offshore Thailand, a purchase of Petrolera Argentina San Jorge.

#### NOTICE

Chevron's fourth quarter 2000 earnings conference call will take pla Wednesday, Jan. 24, 2001, at 11:30 a.m. PST. The conference call in a listen-only mode to individual investors, media and other intere: Chevron's Investor Center Web site at [www.chevron.com](http://www.chevron.com).

Additional financial and operating information is contained in the Inv Supplement that is available on the Investor Center Web site under Results."

Chevron will hold a meeting with security analysts on Monday, Febr 12:30 p.m. to 2:00 p.m. PST. The analysts meeting will be available mode to individual investors, media and other interested parties on Investor Center Web site at [www.chevron.com](http://www.chevron.com).

Chevron will post selected first quarter interim company and industr data on its Web site on Tuesday, March 27, 2001, at 2:00 p.m. PST parties may view this interim data at [www.chevron.com](http://www.chevron.com) under the Ir heading.

Cautionary Statement Relevant to Forward-Looking Information for "Safe Harbor" Provisions of the Private Securities Litigation Reform

1995

Some of the items discussed in this earnings release are forward-lo relating to Chevron's operations that are based on management's c expectations, estimates and projections about the petroleum, chem industries, in which the company operates. Words such as "expects "projects," "believes," "estimates," and similar expressions are used forward-looking statements. The statements included in this release guarantees of future performance and involve certain risks, uncerta assumptions that are difficult to predict. These include potential cha natural gas and other commodity prices and potential delays or oth and repairs schedule. Actual outcomes and results could differ matk expressed or forecasted in such forward-looking statements. SOUR Corporation

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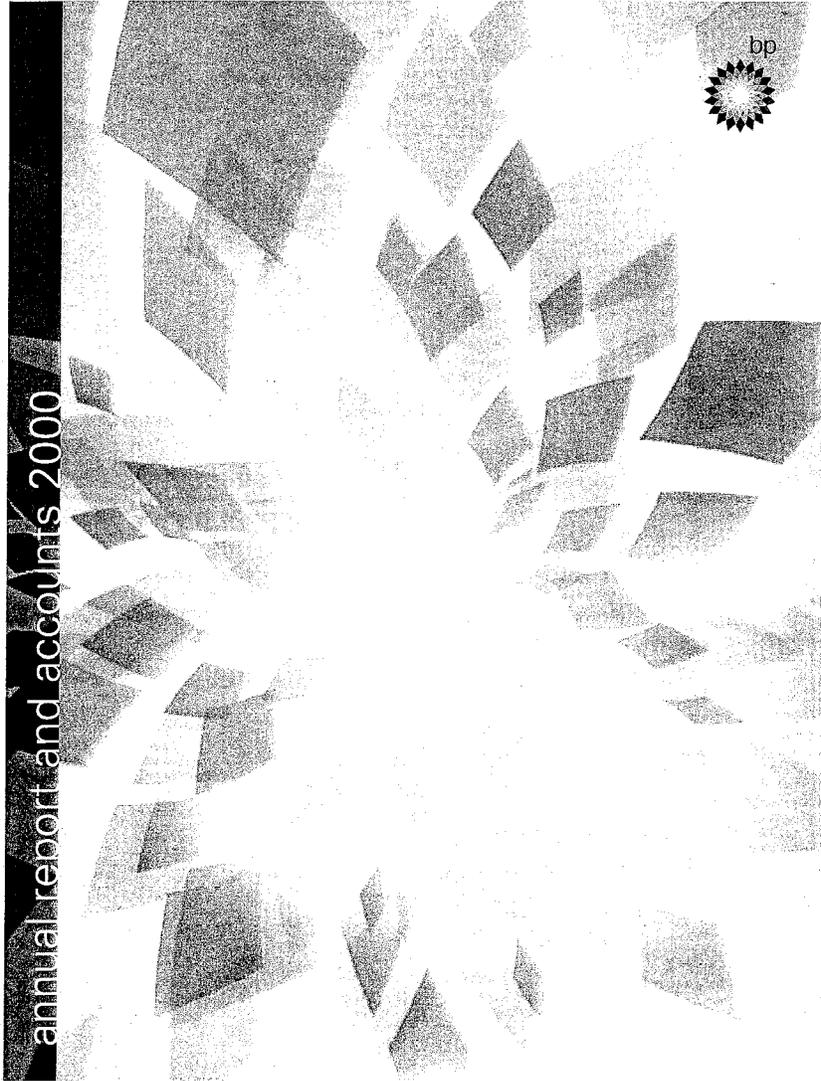
## Financial Highlights

*(billions of dollars unless stated otherwise)*

Financial & Operating Highlights	2000	1999	1998	1997
Total Revenue	232.7	185.5	169.6	201.7
Net Income	17.7	7.9	8.1	11.7
Cash Flow from Operations and Asset Sales	28.7	16.0	18.3	23.7
Capital and Exploration Expenditures	11.2	13.3	15.5	14.1
Exploration Expenditures	1.5	1.9	2.2	1.8
Cash Dividends to ExxonMobil Shareholders	6.1	5.9	5.8	5.8
Research and Development Costs	0.6	0.6	0.8	0.8
Depreciation and Depletion Expense	8.1	8.3	8.4	8.2
Cash and Cash Equivalents	7.1	1.7	2.4	5.0
Total Assets at Year End	149.0	144.5	139.3	143.8
Total Debt at Year End	13.4	19.0	17.0	17.2
Shareholders' Equity at Year End	70.8	63.5	62.1	63.1
Average Capital Employed	87.5	83.8	80.1	79.7
Regular Employees at Year End <i>(thousands)</i>	90.6	106.9	111.6	114.5
<b>Financial Ratios / Indicators</b>				
Earnings per Share - Assuming Dilution <i>(dollars)</i>	5.04	2.25	2.28	3.28
Return on Average Capital Employed <i>(percent)</i>	20.6	10.3	10.7	15.5
Debt to Capital <i>(percent)</i>	15.4	22.0	20.6	20.3
Net Debt to Capital <i>(net of all cash - percent)</i>	7.9	20.4	18.2	15.3

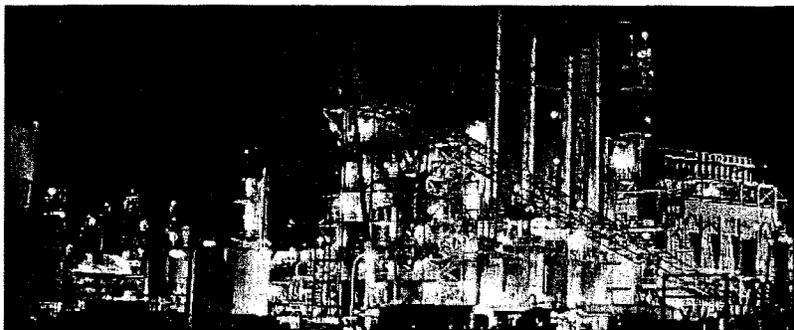
ExxonMobil's debt securities are rated AAA by Standard & Poor's and Aaa by Moody's, the highest credit ratings used by the rating agencies.

Business Profile	<i>Earnings After Income Taxes</i>			<i>Capital and Exploration Expenditures</i>			<i>Average Capital Employed</i>			<i>Return on Average Capital Employed</i>		
	2000	1999	1998	2000	1999	1998	2000	1999	1998	2000	1999	1998
	<i>(billions of dollars)</i>						<i>(percent)</i>					
<b>Upstream</b>												
United States	4,545	1,842	850	1,859	1,729	2,193	12,804	12,660	12,448	35.5	14.5	6.8
Non-U.S.	7,824	4,044	2,502	5,040	6,661	7,797	26,235	26,203	22,691	29.8	15.4	11.0
Total	12,369	5,886	3,352	6,899	8,390	9,990	39,039	38,863	35,139	31.7	15.1	9.5
<b>Downstream</b>												
United States	1,561	577	1,199	1,077	905	1,090	7,976	8,354	8,509	19.6	6.9	14.1
Non-U.S.	1,857	650	2,275	1,541	1,496	1,918	19,756	19,679	18,986	9.4	3.3	12.0
Total	3,418	1,227	3,474	2,618	2,401	3,008	27,732	28,033	27,495	12.3	4.4	12.6
<b>Chemicals</b>												
United States	644	738	792	351	663	689	5,644	5,471	5,293	11.4	13.5	15.0
Non-U.S.	517	616	602	1,117	1,580	1,421	8,170	6,991	5,523	6.3	8.8	10.9
Total	1,161	1,354	1,394	1,468	2,243	2,110	13,814	12,462	10,816	8.4	10.9	12.9
<b>Other Operations</b>	551	426	384	163	249	413	3,992	4,242	4,276	13.8	10.0	9.0
<b>Corporate and Financing</b>	(589)	(514)	(460)	20	24	14	2,886	236	2,353			
<b>Merger Expenses</b>	(920)	(469)										
<b>Gain from Required Asset Divestitures</b>	1,730											
<b>Accounting Change</b>		(70)										
<b>ExxonMobil Total</b>	17,720	7,910	8,074	11,168	13,307	15,535	87,463	83,836	80,079	20.6	10.3	10.7



## Group income statement

For the year ended 31 December	Note	\$ million			
		2000		1999	
		Continuing operations			
		Acquisitions	Total		
<b>Turnover</b>		<b>144,898</b>	<b>16,928</b>	<b>161,826</b>	101,180
Less: Joint ventures		13,339	425	13,764	17,614
<b>Group turnover</b>	1	<b>131,559</b>	<b>16,503</b>	<b>148,062</b>	83,566
Replacement cost of sales		107,155	14,361	121,516	68,615
Production taxes	2	1,936	125	2,061	1,017
<b>Gross profit</b>		<b>22,468</b>	<b>2,017</b>	<b>24,485</b>	13,934
Distribution and administration expenses	3	6,870	1,665	8,535	6,064
Exploration expense		460	139	599	548
		15,138	213	15,351	7,322
Other income	4	531	274	805	414
<b>Group replacement cost operating profit</b>	5	<b>15,669</b>	<b>487</b>	<b>16,156</b>	7,736
Share of profits of joint ventures	5	688	120	808	555
Share of profits of associated undertakings	5	773	19	792	603
<b>Total replacement cost operating profit</b>	5	<b>17,130</b>	<b>626</b>	<b>17,756</b>	8,894
Profit (loss) on sale of businesses	6	132	-	132	363
Profit (loss) on sale of fixed assets	6	88	-	88	(700)
Restructuring costs	6	-	-	-	(1,943)
<b>Replacement cost profit before interest and tax</b>	5	<b>17,350</b>	<b>626</b>	<b>17,976</b>	6,614
Stock holding gains (losses)	5	807	(79)	728	1,728
<b>Historical cost profit before interest and tax</b>		<b>18,157</b>	<b>547</b>	<b>18,704</b>	8,342
Interest expense	7			1,770	1,316
<b>Profit before taxation</b>				<b>16,934</b>	7,026
Taxation	11			4,972	1,880
<b>Profit after taxation</b>				<b>11,962</b>	5,146
Minority shareholders' interest				92	138
<b>Profit for the year</b>				<b>11,870</b>	5,008
Distribution to shareholders	12			4,625	3,884
<b>Retained profit for the year</b>				<b>7,245</b>	1,124
<b>Earnings per ordinary share – cents</b>					
Basic	13			54.85	25.82
Diluted	13			54.48	25.68
<b>Replacement cost results</b>					
<b>Historical cost profit for the year</b>				<b>11,870</b>	5,008
Stock holding (gains) losses				(728)	(1,728)
<b>Replacement cost profit for the year</b>				<b>11,142</b>	3,280
Exceptional items, net of tax	8			72	2,050
<b>Replacement cost profit before exceptional items</b>				<b>11,214</b>	5,330
<b>Earnings per ordinary share – cents</b>					
On replacement cost profit before exceptional items	13			51.82	27.48



*U.S. demand for refined petroleum products currently exceeds its domestic capacity to produce them. The refinery industry is now running at nearly 100 percent of capacity during the peak gasoline consumption season.*

### Oil Refineries

U.S. demand for refined petroleum products, such as gasoline and heating oil, currently exceeds our domestic capacity to produce them. The refinery industry is now running at nearly 100 percent of capacity during the peak gasoline consumption season and is producing record levels of needed products at other times. The excess demand has recently been met by increased imports.

The U.S. refining industry has experienced a decade of low profitability and rates of return on investment. This has discouraged investment in new refineries. In fact, almost 50 U.S. refineries closed over the last ten years, and no major refineries have been built in the last twenty-five years.

During the last ten years, overall refining capacity grew by about 1 to 2 percent a year as a result of expansion in the capacity of existing, larger refineries. Although there was a significant, sustained improvement in margins during 2000, those gains arose out of a very tight supply situation and high, volatile prices. Industry consolidation has been a key response to this poor profitability.

The U.S. refining industry is also facing major infrastructure problems. While the industry expanded steadily through the 1970s, it went through a period of consolidation after the oil shocks of 1973 and 1978.

Ongoing industry consolidation, in an effort to improve profitability, inevitably leads to the sale or closure of redundant facilities by the new combined ownership. This has been particularly true of terminal facilities, which can lead to reductions in inventory and system flexibility. While excess capacity may have deterred some new capacity investments in the past, more recently, other factors, such as regulations, have deterred investments.

Refiners are subject to significant environmental regulation and face several new clean air requirements over the next decade. Refiners will face many clean fuel production standards, which require the production of many different kinds of gasoline and diesel fuel for different parts of the country. New Environmental Protection Agency rules will require refiners to produce gasoline and diesel fuel with significantly lower sulfur content. New clean air requirements will benefit the environment, but will also require substantial capital investments and additional government permits. The proliferation of distinct regional and state gasoline and diesel product standards, the significant permitting needed, and the downtime to make the needed physical and operational changes will challenge refiners and governments to effectively coordinate in order to reduce the likelihood of supply shortfalls and price spikes.

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**DOE News**  
RELEASE DATE: MAY 17, 2001

**Reliable, Affordable, and Environmentally Sound Energy for America's Future**  
*Report of the National Energy Policy Development Group*

*"The National Energy Policy released today by President Bush marks an historic first step to addressing long-neglected energy challenges. Given our growing economy and rising standard of living we are faced with an energy crisis. The President's National Energy Plan balances America's supply needs through technology, diversity of supply and conservation and paves the way for America's energy future."*

-- Secretary of Energy, Spencer Abraham

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(document sizes are approximate).

By individual chapter:

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- o [Overview\(140KB\)](#)
- o [Chapter 1 - Taking Stock\(1000KB\)](#)
- o [Chapter 2 - Striking Home\(990KB\)](#)
- o [Chapter 3 - Protecting America's Environment \(1000KB\)](#)
- o [Chapter 4 - Using Energy Wisely\(740KB\)](#)
- o [Chapter 5 - Energy for a New Century \(1000KB\)](#)
- o [Chapter 6 - Nature's Power\(880KB\)](#)
- o [Chapter 7 - America's Energy Infrastructure \(1500KB\)](#)
- o [Chapter 8 - Strengthening Global Alliances \(980KB\)](#)
- o [Appendix 1 - Summary of Report Recommendations\(48KB\)](#)
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# America's Energy Infrastructure

## A Comprehensive Delivery System

One of the greatest energy challenges facing America is the need to use 21st-century technology to improve America's aging energy infrastructure. Americans need a comprehensive, long-term solution to deliver energy to industry and consumers in a reliable and safe manner.

Our energy infrastructure is comprised of many components, such as the physical network of pipes for oil and natural gas, electricity transmission lines and other means for transporting energy to consumers. This infrastructure also includes facilities that turn raw natural resources into useful energy products. The rail network, truck lines, and marine transportation are also key components of America's energy infrastructure.

The energy industry has undergone major changes in the last two decades, and more are expected. These changes affect how our energy infrastructure operates. For example, while the electricity industry was once vertically integrated, it is increasingly separated into three isolated segments: generation, transmission, and distribution.

Our energy infrastructure has failed to keep pace with the changing requirements of our energy system. Domestic refining capacity has not matched increases in demand, requiring the United States to import refined products. Natural gas pipelines have not expanded sufficiently to meet demand. The electricity transmission system is constrained by insufficient capacity. Rail capacity was significantly increased during the 1970s when rail facilities were improved to move more coal. Since then, however, few additions to the coal transportation rail network have been built.

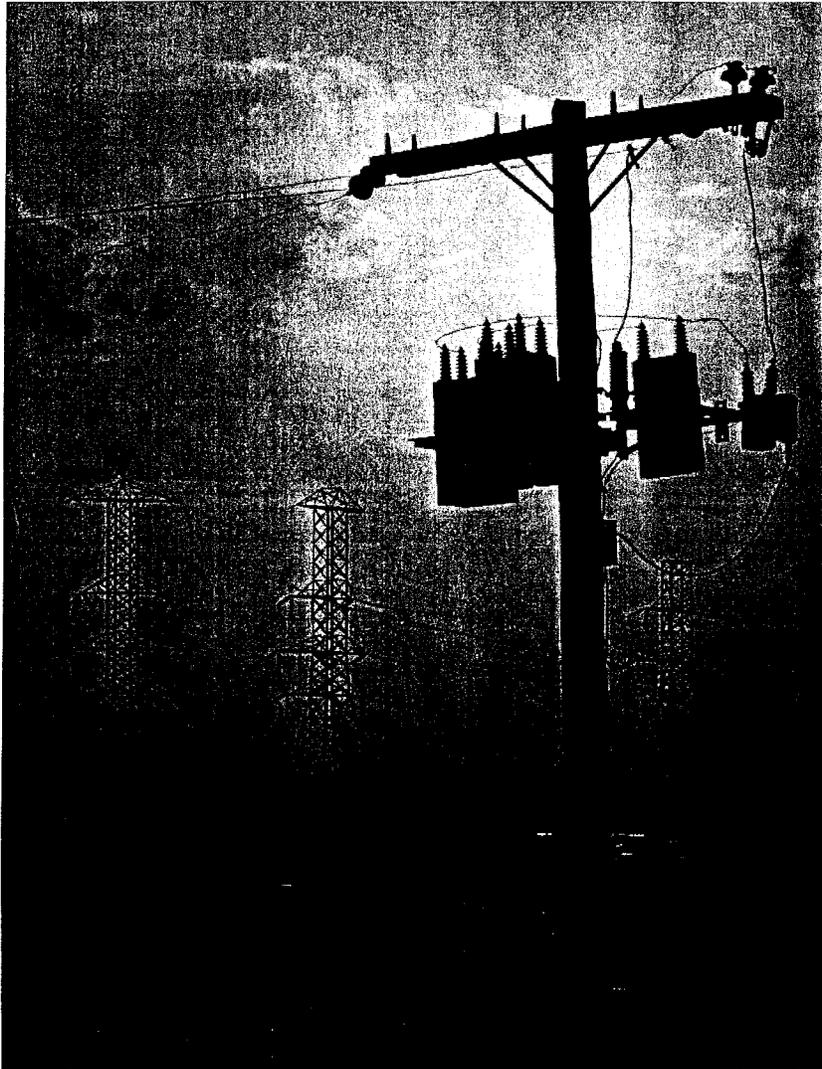
The United States needs to modernize its energy infrastructure. One sign of a lack of an energy policy in recent years has been the failure to maintain the infrastructure needed to move energy where it is needed most.

### Electricity

The electricity infrastructure includes a nationwide power grid of long-distance transmission lines that move electricity from region to region, as well as the local distribution lines that carry electricity to homes and businesses. Electricity originates at power plants, which are primarily fueled by coal, nuclear, natural gas, water and, to a lesser extent, oil. Coal, natural gas and oil powered plants require a dependable transportation infrastructure to deliver the fuels necessary for the production of electricity. A transportation network for waste disposal is also necessary for power plants that create by-products.

### Restructuring

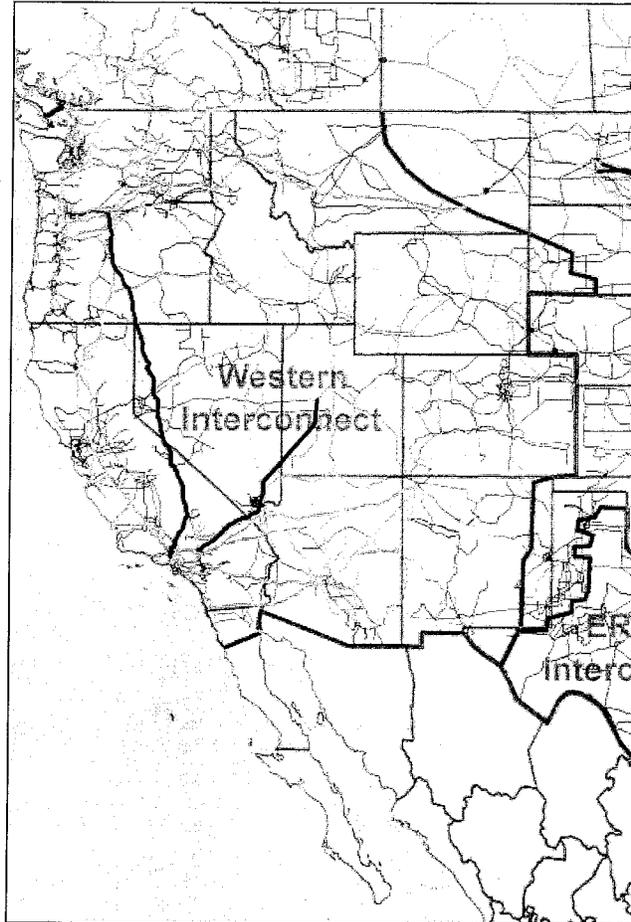
The electricity industry has undergone considerable changes in the last two decades. These changes affect how our electricity infrastructure operates. Major industry restructuring has separated once vertically integrated electric utilities that supplied generation, transmission, and distribution services into distinct entities. To facilitate competition at the wholesale level, in 1996, the Federal Energy Regulatory Commission (FERC) required transmission-owning utilities to "unbundle" their transmission and power marketing functions, and provide nondiscriminatory, open access to their transmission systems by other utilities



**Figure 7-1  
North American  
Transmission Lines**

About 204,000 miles of long-distance transmission lines move power from region to region. The four integrated transmission grids serving North America are the Western Interconnection, Eastern Interconnection, Electric Reliability Council of Texas, and Province of Quebec.

Source: PA Consulting Group





and independent power producers. At the retail level, some states have required utilities to divest their generation assets as part of restructuring. These utilities currently supply only transmission and distribution services for customers who purchase electricity (i.e., generation services) from other firms. In addition, power marketers—who often do not own generation, transmission, or distribution facilities—buy and sell power on wholesale markets and market electricity directly to customers.

Electricity competition has led to significant changes in the operation of the bulk power grid, which are the power plants and high-voltage transmission facilities that make up the wholesale power market. More electricity is being shipped longer distances over a transmission system that was initially designed only to provide limited power and reserve sharing among neighboring utilities. Electric utilities that were once solely responsible for ensuring that adequate generation was available to meet demand now purchase a substantial amount of the power they need from the wholesale market, relying on independent power producers to build and operate plants.

#### Electricity Generation

There are roughly 5,000 power plants in the United States, and they have a total generating capacity of nearly 800,000 megawatts. Over the past few years, there has been an explosion of "merchant" power plants proposed by independent power producers seeking to sell into wholesale markets. In spite of this interest, a number of regions of the country are experiencing capacity shortages as a result of wholesale market design problems and barriers to siting and building new power plants.

Over the next ten years, demand for electric power is expected to increase by about 25 percent, and more than 200,000 megawatts of new capacity will be required. However, under current plans electric transmission capacity will increase by only 4 percent. This shortage could lead to serious transmission congestion and reliability problems.

#### Transmission Grid

The United States does not have a national transmission grid. Instead, there are four integrated transmission grids serving North America: the Western Interconnection, Eastern Interconnection, Electric Reliability of Council of Texas, and the Province of Quebec (Figure 7-1). These regional grids themselves are international, encompassing the United States, Canada, and part of Mexico.

Transactions between the four integrated transmission grids are very limited because they are interconnected at only a few locations through interties, so for all practical purposes they can be viewed as separate transmission grids. The four integrated transmission grids break down into a series of smaller regions, largely defined by transmission constraints. Altogether, 204,000 miles of transmission lines in North America move power from the point of generation to where electricity is needed. There are 157,810 miles of transmission lines in the United States. Transmission grid expansions are expected to be slow over the next ten years, with additions totaling only 7,000 miles.

The transmission system is the high-way system for interstate commerce in electricity. Transmission allows the sale of electricity between regions. In a particular region, transmission can be a substitute for generation, allowing that region to import power that otherwise would have to be generated within that region. In some cases, transmission expansion may be more cost-effective than generation additions, allowing a region better access to lower-cost generation.

Transmission constraints limit these power flows, and result in consumers paying higher prices for electricity. The electricity price spikes in the Midwest in the summer of 1998 were caused in part by transmission constraints limiting the ability of the region to import electricity from other regions of the country that had available electricity. During the summer of 2000, transmission constraints limited the ability to sell low-cost power from the Midwest to the South during a period of peak demand.

resulting in higher prices for consumers. Transmission capacity limits could result in price pressures and reliability problems this summer in California, Long Island, the Great Lakes, the Southeast, and New England (Figure 7-2).

Regional shortages of generating capacity and transmission constraints combine to reduce the overall reliability of electric supply in the country and are reducing the quality of power delivered to end users. Power quality is becoming an increasingly important issue as our digital economy continues to grow.

One factor limiting reliability is the lack of enforceable reliability standards. Since 1968, the reliability of the U.S. transmission grid has depended entirely on voluntary compliance with reliability standards. There is a broad recognition that voluntary adherence with reliability standards is no longer a viable approach in an increasingly competitive electricity market. There is a need to provide for enforcement of mandatory reliability standards. Broad support has emerged for development of these standards by a self-regulating organization overseen by FERC.

#### Recommendations:

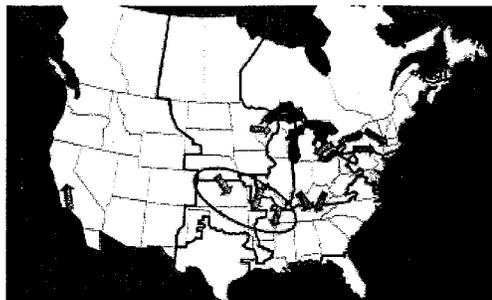
★ The NEPD Group recommends that the President direct the Secretary of Energy to work with FERC to improve the reliability of the interstate transmission system and to develop legislation providing for enforcement by a self-regulatory organization subject to FERC oversight.

★ The NEPD Group recommends that the President direct the Secretary of Energy to expand the Department's research and development on transmission reliability and superconductivity.

Transmission constraints were also a primary factor in blackouts in northern California, which imports power from both the Northwest and southern California. When resources are not available in the Northwest, electricity supply must come

Figure 7-2

#### Current Electric Power Bottlenecks



Transmission capacity limits could result in price pressures and reliability problems this summer in California, Long Island, the Great Lakes, the Southeast, and New England. The arrows in this figure depict the locations and directions of current transmission congestion.

Source: North American Electric Reliability Council.

from southern California's Path 15 transmission route. Path 15 does not have sufficient capacity to provide all of the power needed in northern California.

#### Recommendation:

★ The NEPD Group recommends that the President direct the Secretary of Energy to authorize the Western Area Power Administration to explore relieving the "Path 15" bottleneck through transmission expansion financed by nonfederal contributions.

Transmission constraints have been a persistent cause of price spikes in New York City in recent years. The New York Independent System Operator (the grid operator in that state) estimates that the city will be short about 400 MW below their desired reserve margin of power during the summer peak. To fill this gap, the New York Power Authority is trying to install additional generation capacity in the city. Market-oriented approaches could also be used to create additional capacity and alleviate some of the potential problems.

If transmission constraints are not removed, the result can be higher prices and

lower reliability. There are various reasons why transmission constraints exist. One is the lack of sufficient investment in transmission. Transmission investment has lagged dramatically over the past decade (Figure 7-3). There is a need to ensure that transmission rates create incentives for adequate investment in the transmission system, especially as restructuring leads to the creation of transmission companies whose only business is operation of transmission facilities. FERC recognizes this need and has expressed a willingness to consider innovative transmission pricing proposals.

Another cause of transmission constraints is the siting process. Under current law, siting of transmission facilities is a responsibility of state governments, not the federal government, even though the transmission system is not only interstate but also international, extending into both Canada and Mexico. This stands in stark contrast to siting of other interstate facilities, such as natural gas pipelines, oil pipelines, railroads, and interstate highways.

Federal law governing the responsibility for siting transmission facilities was written in 1935, nearly 80 years ago. At the time, transmission facilities were not inter-

state, and there was virtually no interstate commerce in electricity. Congress did not anticipate the development of an interstate and international transmission system.

State decisions on where to locate transmission lines often do not recognize the importance of proposed transmission facilities to the interstate grid. For example, a recent decision by regulators in Connecticut to block a proposed transmission line to Long Island did not recognize the need for electricity on Long Island. Some state siting laws require that the benefits of a proposed transmission facility accrue to the individual state, resulting in the rejection of transmission proposals that benefit an entire region, rather than a single state.

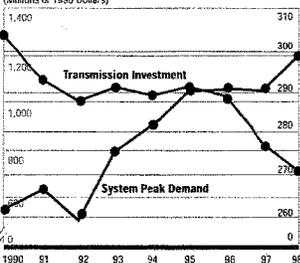
Much has changed since 1935. The transmission system is the highway for interstate commerce in electricity. Transmission constraints are resulting in higher prices for consumers and lower reliability. The siting process must be changed to reflect the interstate nature of the transmission system.

#### Recommendations:

★ The NEPD Group recommends that the President direct the appropriate federal agencies to take actions to remove constraints on the interstate transmission grid and allow our nation's electricity supply to meet the growing needs of our economy.

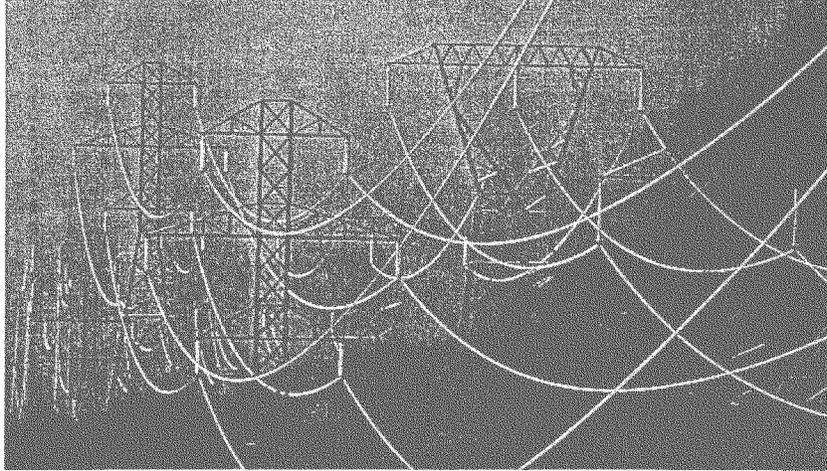
- Direct the Secretary of Energy, by December 31, 2001, to examine the benefits of establishing a national grid, identify transmission bottlenecks, and identify measures to remove transmission bottlenecks.
- Direct the Secretary of Energy to work with FERC to relieve transmission constraints by encouraging the use of incentive rate-making proposals.
- Direct the federal utilities to determine whether transmission expansions are necessary to remove constraints. The Administration should review the Bonneville Power Administration's (BPA's) capital and

Figure 7-3  
U.S. Investment in New Electric Power Transmission  
(Millions of 1990 Dollars)



Growth in peak demand for electricity has far outstripped investment in transmission capacity. As a result, transmission constraints could aggravate already limited supplies of power and could result in high prices in some areas of the country.

Source: PA Consulting Group, based on data from the UDI data base



financing requirements in the context of its membership in a regional RTO, and if additional Treasury financing appears warranted or necessary in the future, the Administration should seek an increase in BPA's borrowing authority at that time.

- Direct the Secretary of Energy, in consultation with appropriate federal agencies and state and local government officials, to develop legislation to grant authority to obtain rights-of-way for electricity transmission lines, with the goal of creating a reliable national transmission grid. Similar authority already exists for natural gas pipelines in recognition of their role in interstate commerce.

Another cause of transmission constraints is limited access to federal lands. The federal government is the largest landowner in the United States and owns most of the land in some western states. Limited access to federal lands can block needed transmission expansion. A case in point is a transmission line being built from West Vir-

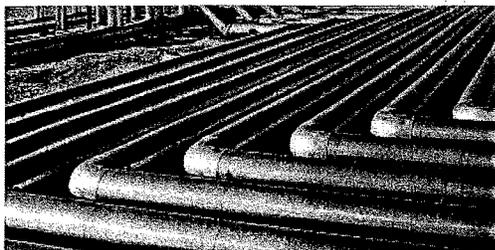
ginia to Virginia. Five years ago, the Department of Energy identified that line as critical to the reliability of the transmission system on the East Coast. Five years later, the line is still not complete. Improved access to federal land can help remove transmission constraints.

#### Rights-of-Way on Federal Lands

The Bureau of Land Management (BLM) estimates that 90 percent of the oil and natural gas pipeline and electric transmission rights-of-way in the western United States cross federal lands. These lands are principally lands managed by either the BLM or the U.S. Forest Service. Rights-of-way are authorized through an approval process that allows the public to comment on proposals to locate infrastructure items, like utility poles, on these rights-of-way. As part of this process, proposals are examined for resource and other use conflicts, and a national interest test is applied prior to approval.

The BLM administers 85,000 rights-of-way, including 23,000 for oil and gas pipelines and 12,000 for electric transmission lines. It processes over 1,200 pipeline and electric system right-of-way applications a year, with an increase in applications of

*The electric power infrastructure includes a nationwide "power grid" of long-distance transmission lines that move electricity from the point of generation to where the electricity is needed. Over the next ten years, U.S. demand for electric power is expected to increase by 25 percent, while transmission capacity is expected to increase by only 4 percent.*



*Virtually all natural gas in the United States is moved via pipeline. The current domestic natural gas transmission capacity of approximately 23 trillion cubic feet (tcf) will be insufficient to meet the projected 50 percent increase in U.S. consumption projected for 2020.*

over 10 percent a year in recent years. The demand for additional energy and electricity is expected to increase the need for rights-of-way across federal lands.

Other federal entities also deal with rights-of-way, each approaching the issue from a unique perspective. The National Park Service is authorized to grant leases and permits, but discourages rights-of-way corridors unless there are no practical alternatives. The U.S. Fish and Wildlife Service manages National Wildlife Refuge lands for wildlife and habitat values, and allows corridors where they were pre-existing or are determined to be compatible with the purposes for which a refuge was established. The Bureau of Reclamation is authorized to grant rights-of-way over lands acquired or withdrawn for reclamation purposes, if compatible with authorized project purposes. The Bureau of Indian Affairs and tribal governments are authorized to grant rights-of-way across both tribal and individually owned Indian lands.

#### Pipelines

After being pumped from the ground in domestic oil fields, oil travels through gathering lines to pipelines, which bring it to refineries, where it is transformed into petroleum products like gasoline, diesel fuel, or heating oil. These products then travel through pipelines and tanker trucks to distribution outlets for purchase by consumers. Natural gas must similarly travel from gas fields through gathering lines to processing facilities, and then into pipelines

and local distribution lines to its final destination. These pipeline systems involve a complex infrastructure of their own, including pump stations or compressor stations, and control systems that open and close valves and switch product flow through pipes, often with the use of computer technology.

#### Oil Pipelines

The two million miles of oil pipelines in the United States are the principal mode for transporting oil and petroleum products such as gasoline. They account for about 66 percent of domestic product movements (Figure 7-4). Increases in the demand for oil and changes in where it is supplied will lead to the need for more pipeline capacity.

Pipelines are less flexible than other forms of oil transport, because they are fixed assets that cannot be easily adjusted to changes in supply and demand. Once built, they are an efficient way to move petroleum and petroleum products. A modest-sized pipeline carries the equivalent of 750 tanker truckloads a day—the equivalent of a truckload leaving every two minutes, 24 hours a day, 7 days a week. Replacing the same pipeline with a railroad train of tank cars, carrying 2,000 barrels each, would require a 75-car train to arrive and be unloaded every day. Pipelines are relatively inexpensive to operate and are generally quiet and safe. Ensuring pipeline safety requires careful management, as multiple products move through a single pipeline system at the same time.

Insufficient domestic pipeline capacity has caused peak-load problems in moving oil and petroleum products such as gasoline from one region of the country to another. For example, many energy analysts forecasted the possibility of a shortage last winter in the upper Midwest of liquefied petroleum gas used for heating and for drying crops. Others were concerned about possible shortages of heating oil in New England.

Energy supply shortages can create operational difficulties for the pipelines themselves. The complex interrelationship

of our energy infrastructure is evident: since pipelines have been shut-down for varying time periods due to regional electricity shortages.

For example, fuel supplies to Las Vegas and Phoenix became dangerously low when blackouts in California shut down the main pipeline serving those areas. The California Public Utilities Commission (CPUC) has granted a waiver of penalties to oil pipelines that have interruptible contracts for electricity to help ensure the uninterrupted flow of motor fuel supplies to California. The California Energy Commission asked the CPUC to grant the waiver in order to minimize the threat to public health due to disruptions of fossil fuel supplies. While the waiver of penalties does not guarantee that disruptions of power to petroleum product pipelines will not occur, it diminishes the threat by allowing disruptions to occur only when they are coordinated with the entire petroleum product delivery system, from refinery to pipeline to terminals. Both Phoenix and Las Vegas would benefit from this decision because refineries and pipelines from California supply the two cities.

Much of the existing oil pipeline infrastructure is old, requiring regular safety and environmental reviews to ensure its reliability. The potential risk of pipeline accidents to human health and safety is of grave concern. In June 1999, a petroleum product pipeline ruptured and caught fire in Bellingham, Washington. In addition to tragic loss of life, the pipeline's 18-month shutdown caused an economic hardship to the Seattle-Tacoma Airport and other local businesses that relied on the pipeline for aviation and diesel fuels. To avoid similar crises, the Department of Transportation, which has responsibility for pipeline safety, has adopted regulations and other risk management approaches to ensure safety in pipeline design, construction, testing, operation, maintenance, and emergency response.

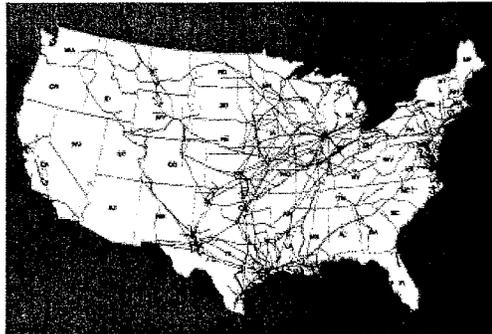
**Recommendation:**

★ The NEPD Group recommends that the President direct the Secretary of the Interior to work with Congress and the State of Alaska to put in place the most expeditious process for renewal of the Trans-Alaskan Pipeline System rights-of-way to ensure that Alaskan oil continues to flow uninterrupted to the West Coast of the United States.

The Trans-Alaska Pipeline System is the single most important crude oil pipeline in the United States, and is perhaps the most regulated oil pipeline in the world. The pipeline system has carried nearly one-fifth of all domestically produced oil for the last two decades. Since beginning operations in 1977, it has transported more than 13 billion barrels of oil from Alaska's North Slope across 800 miles to the Port of Valdez. Since the pipeline began operation, only 0.00014 percent of the total amount of oil transported through it has been spilled.

The pipeline's federal grant and state lease for right-of-way expires in 2004 and will require renewal. That process will in-

Figure 7-4  
U.S. Oil Pipelines



The two million miles of oil pipelines in the United States are the principal mode for transporting crude oil and refined products. They account for about 66 percent of domestic product movements.

Source: U.S. Department of Transportation, Office of Pipeline Safety.

**Recommendation:**

★ The NEPD Group recommends that the President direct the Administrator of the EPA to study opportunities to maintain or improve the environmental benefits of state and local "boutique" clean fuel programs while exploring ways to increase the flexibility of the fuels distribution infrastructure, improve fungibility, and provide added gasoline market liquidity. In concluding this study, the Administrator shall consult with the Departments of Energy and Agriculture, and other agencies as needed.

Since 1990, refiners have met growing demand by increasing the use of existing equipment and increasing the efficiency and capacity of existing plants. Even with these efforts, however, refining capacity has begun to lag behind peak summer demand. Price volatility and the cyclical nature of oil markets inhibit investment in supply infrastructure. While investors can withstand market fluctuations for some commodities, large investments in oil exploration and development—such as for drilling required to maintain a steady supply and the pipelines needed to bring supply to market—are often curtailed during times of low oil prices. The outcome of this lack of steady investment is less supply, higher prices, and the abandonment of marginal oil resources that may never be recovered.

**Recommendations:**

- ★ The NEPD Group recommends that the President direct the Administrator of the Environmental Protection Agency and the Secretary of Energy to take steps to ensure America has adequate refining capacity to meet the needs of consumers.
- Provide more regulatory certainty to refinery owners and streamline the permitting process where possible to ensure that regulatory overlap is limited.
- Adopt comprehensive regulations

(covering more than one pollutant and requirement) and consider the rules' cumulative impacts and benefits.

★ The NEPD Group recommends that the President to direct the Administrator of the Environmental Protection Agency, in consultation with the Secretary of Energy and other relevant agencies, to review New Source Review regulations, including administrative interpretation and implementation, and report to the President within 90 days on the impact of the regulations on investment in new utility and refinery generation capacity, energy efficiency, and environmental protection.

- The NEPD Group recommends that the President direct the Attorney General to review existing enforcement actions regarding New Source Review to ensure that the enforcement actions are consistent with the Clean Air Act and its regulations.

**Energy Transportation Infrastructure**

The infrastructure used to transport energy products includes ocean tankers; inland barges; specialized trucks for oil and refined products, such as gasoline and heating oil; railroad tank cars and coal cars; and the waterways, highways, and railroads upon which they travel. There is also a substantial inventory of river and oceanside port facilities that are used for moving energy materials.

**Marine Transportation**

Marine transportation of oil and refined products accounts for nearly one-third of domestic shipments. Approximately 3.3 billion barrels of oil and petroleum products and 229 million short tons of coal move through the nation's ports and waterways every year.

There are three kinds of ship transports of domestic energy products. Tankers



*Double-hulled tank barges provide distribution of petroleum products.*

NICOLE LEON REINAKER AND RTC 135

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BERNARD SANDERS, VERMONT,  
INDEPENDENT

The Honorable Doug Ose  
Chairman  
Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs  
Committee on Government Reform  
B377 Rayburn HOB  
Washington, DC 20515

Dear Chairman Ose:

I am writing to request your assistance in ensuring that information that is requested from witnesses at subcommittee hearings, including information that was requested at the June 14, 2001, hearing, is included in the official hearing record.

It is my understanding that you have decided to implement a new policy applicable to the June 14, 2001, hearing on gasoline supply and future subcommittee hearings. Under this policy, members and witnesses would not be able to submit documents for the hearing record more than ten business days after the hearing (other than grammatical and technical changes to the draft transcript).

Members may not be able to obtain the information they requested from witnesses during this time period. The subcommittee typically does not receive a draft hearing transcript for five business days. The majority staff then mails relevant portions of the transcript to the witnesses and members for their review. (For instance, I received my June 14, 2001, draft testimony yesterday -- on the seventh business day after the hearing.) At this time, members are able to review the record to determine what information they requested of witnesses and witnesses are able to determine what information they agreed to provide. The witnesses then gather, review, and send the information to the subcommittee. (Witnesses may be unwilling to provide the requested information until they have an opportunity to see what they said under oath on the matter.) If a member determines that the responses are inadequate, he or she can reiterate, clarify, or ask follow-up questions which are later answered by the witnesses. Unfortunately, it is difficult to complete this process within ten business days. Furthermore, under the new policy, witnesses could avoid providing potentially damaging information for the record by delaying their responses to the subcommittee.

Unfortunately, the new policy is already causing some problems. It appears that I may be

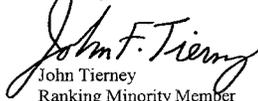
unable to obtain information that I requested from two of the witnesses at the June 14, 2001, hearing on time. At the hearing, John Cook, Director of the Petroleum Division at the Energy Information Administration (EIA), agreed to provide information regarding refining industry profits. However, when my staff asked that he provide it within ten business days of the hearing, he was concerned that he might be unable to meet this deadline.

In addition, Ben Lieberman, Senior Policy Analyst at the Competitive Enterprise Institute (CEI), agreed, under oath, to provide for the record a list of how much each company in the energy industry contributed to CEI. However, he wrote you a letter on June 15, 2001, stating that he was not willing to provide this information because "CEI keeps all contributions anonymous unless publicity is specifically requested from a donor." Unfortunately, because the majority staff did not inform the minority staff of the existence of this letter, I was not aware of its contents until June 22, 2001. Thus, I may be unable to complete research of this issue before the deadline.

I am not asking that you force Mr. Lieberman to provide the promised information. Nevertheless, when my staff asked for your staff's assistance on this matter, your staff indicated that the subcommittee can only force government witnesses to provide information that they agree, under oath, to provide for the record. However, the Parliamentarian is not aware of any rule that provides that government witnesses can be treated differently than other witnesses in this regard.

The information from both witnesses is relevant and important to the subcommittee's investigation of the gasoline supply. Therefore, I request your assistance in obtaining the information and including it in the record. I understand that, in some instances, you may need to close a hearing record in order to get it printed in short order. However, it is my understanding that you are holding the June 14, 2001, record open for more than ten business days in order to receive corrections to the draft transcript. Thus, it apparently would not create a hardship to hold the record open for other purposes.

Sincerely,



John Tierney  
Ranking Minority Member  
Subcommittee on Energy Policy, Natural Resources  
and Regulatory Affairs

cc members of the subcommittee

Ben Lieberman of the Competitive Enterprise Institute (CEI) originally agreed, under oath, to provide information regarding energy industry contributions to CEI, but later refused to provide the information. Thus, Rep. Tierney is including the following article which lists some of the companies in the energy industry that have contributed to CEI.



ENVIRONMENTAL WORKING GROUP

## CLEAR Resources



Clearinghouse on Environmental Advocacy and Research

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### Show Me The Science ! Corporate Polluters and the 'Junk Science' Strategy.

July 1997

The battle over the Environmental Protection Agency's new proposed clean air standards is the latest example in a long line of similar efforts by environmental backlash groups to weaken, repeal or prevent passage of strong environmental protections.<sup>1</sup> In the clean air debate no fewer than 12 backlash groups have weighed in with their views on the "soundness" of the EPA's science.<sup>2</sup> Of those groups, two were established specifically for the purpose of combating the air standards.

The anti-environmental lobby has increasingly used the "junk science" criticism when faced with a new policy issue, routinely condemning what it claims is a misuse of science by environmentalists and others in public policy-making. In case after case, environmental and public health and safety protections have been challenged by anti-environmental advocates who claim that laws and regulations are not based on "sound science."

A look at the anti-environmental lobby's science experts reveals that their claims to the science high-ground are flimsy at best. A select set of scientists are called on time and again to dispute the scientific basis of environmental policy. Because of the shortage of anti-environmental scientists, many are often called on to comment on a broad range of policy issues. Many prominent anti-environmental scientists are associated with free-market, anti-regulatory think tanks. These think tanks are funded by the very corporate interests that are positioned to benefit from the success of the anti-environmental lobby's political efforts to defeat policies that protect the environment.

### **The Roots Of The Sound Science Backlash**

Publication of Rachel Carson's *Silent Spring* in 1962 gave birth to more than just modern environmentalism. A second, unsavory offspring can trace its origins to the campaigns to discredit the information and ideas presented in *Silent Spring*. As environmentalism grew as a political force in this country, an anti-environmental movement comprised of think tanks, activist organizations, trade associations and high-priced public relations specialists grew parallel to it.

E. Bruce Harrison was among the first practitioners of the "junk science" counteroffensive often employed by the anti-environmental lobby. According to John Stauber and Sheldon Rampton in *Toxic Sludge is Good For You*, Harrison received money from the National Agricultural Chemical Association (NACA), the trade association for the nation's pesticide companies, to devise a strategy to offset negative publicity from Carson's book.<sup>3</sup> Harrison created a buffer of front groups and sympathetic professionals from the scientific community to launch the counterattack against Carson and the science in her book. This model has been the basis of "junk science" attacks ever since. Harrison went on to found a consulting business specializing in "green P.R." for clients such as Clorox, Monsanto, Uniroyal Chemical, and the [Global Climate Coalition](#).

For the environmental backlash industry, "junk science" is almost by definition any science, no matter how rigorous, that justifies regulations to protect the environment and public health. "Junk science," in the view of the anti-environmentalists, is the purview of environmentalists and government scientists. "Sound science," on the other hand, is science used to challenge, defeat or reverse environmental and public health and safety rules and protections. "Sound science" is practiced by the anti-environmental lobby and their allies in the wise use movement and its supporters in the free-market, anti-regulatory trade associations, conservative policy think tanks and corporate front groups. And "sound science" attacks to counter environmental science and regulation are commonly bought and paid for by the very companies that are subject to environmental regulation.

Anti-environmental advocates seem increasingly focused on establishing this polarity of "junk" vs. "sound" science in the minds of policy makers and the public. The underlying strategy appears to be the creation of "reasonable doubt" in the public debate over the need for certain laws and regulations to protect the environment. As debates over clean air and clean water regulations heat up, for example, the anti-environmental faction will call into question whether or not all the scientific facts are available to justify action (a self-serving principle, since science rarely provides absolute certainty on complex environmental phenomena until it is too late). By pointing out that environmentalists and the science they cite do not constitute an absolute answer to the problem, the anti-environmental lobby further questions whether the public or industry can afford to pay for costly regulations when the underlying science is "incomplete."

One major flaw in this approach is that the anti-environmental lobby and its special interest allies can identify precious few independent scientists to back up the challenges to science-based environmental policy. The same handful of "science skeptics" are quoted over and over in news accounts of science and public policy. Similarly, a narrow set of conservative public policy organizations are repeatedly pointed to as expert sources for information in the "sound" science debate.

In a response to this obvious weakness, efforts have been made in recent years by anti-environmental advocates to develop a more credible scientific base. In 1993, The Advancement of Sound Science Coalition (TASSC) was launched to help present the industry view of science-based regulations. In 1996, a project called the Environmental Policy Analysis Network (EPAN) was launched to help debunk environmental science (see Appendix A).

Another effort is the publication of a directory of experts by the National Center for Public Policy Research (NCPPR). The directory is a 'who's who' of "junk science" experts and covers a range of issues. However, a CLEAR analysis of this network of anti-environmental activists once again highlights the fatal flaw of this list; that many of the so-called "experts" lack the credentials to refute the mounting body of science behind environmental and health

and safety standards.

**The "Directory of Environmental Scientists and Economists"**

In November, 1996, the Environmental Policy Task Force, a division of the conservative National Center for Public Policy Research ([see Appendix B](#)), released a publication called the "Directory of Environmental Scientists and Economists." The introduction explained that the directory was designed to provide a listing of experts on environmental issues:

The environment is too important to leave in the hands of political activists. Yet, this is precisely where the United States has left most environmental decision making in recent years. Political activists - not authentic environmental scholars, scientists and economists - have come to dominate both the headlines and Washington's legislative agenda. Activists with little or no practical experience or scientific training are frequently cited in the national news media as "experts"- or worse, as "scientists." The result: The federal government often spends billions in taxpayer dollars regulating peoples' lives to solve questionable environmental risks while ignoring real ones.

The Environmental Policy Task Force developed this directory to ensure that journalists and policy makers alike have ready access to real environmental scientists, economists and experts. The pages that follow include some 141 individuals with expertise in such environmental disciplines as atmospheric issues, waste disposal and management, endangered species, and air pollution.

The "Directory of Environmental Scientists and Economists" lists experts with a wide-range [sic] of views and expertise on environmental issues. Although *the majority* of these experts

are either scientists or economists, other authorities on environmental issues are also included to ensure that this publication is as comprehensive as possible [emphasis added].

The directory describes most of the personnel as either "scientists," "economists," or "public policy experts." Despite the claim that the directory is intended to provide a listing of scientists and economists to counter the prevalence of environmentalist political activists posing as self-appointed experts, over half of the people listed in the directory are described not as "scientists" or "economists," but as "public policy experts" (Figure 1).

The directory provides a listing of the experts in 27 environmental policy fields, from "Agricultural Issues" to "Wildlife." The majority of the "experts" listed in the directory appear in more than one field of expertise. In fact, more than half of the "public policy experts" included in the directory are listed as experts in three or more of the 27 policy fields, and 25 or them, or 28 percent of the total, are counted as experts in two fields of interest. The figures are similar for percentages of "scientists" (49 percent) and "economists" (64 percent) in the directory who serve as "experts" on three or more issues.

There are two possible reasons for this tendency: One is that the "experts" in the anti-environmental lobby are a diverse crowd with multiple talents; the other is that the field of "experts" is so thin that most of them need to "specialize" in numerous policy fields in order to cover their bases. It is the second reason that is borne out of the data. For example, the Competitive Enterprise Institute's Ike Sugg, Wildlife and Land Use Policy Fellow, is listed as an expert in 5 different fields including animal rights, endangered species, innovative environmental solutions, land issues, and wilderness issues.

Each of the 27 environmental policy categories included in the directory lists a set of experts in that area of environmental politics, with the total number of experts listed in each area ranging from two to over 30 experts. A total of 418 experts are listed in the 27 categories of the directory. With only 141 people included in the directory, a number of experts are listed in numerous categories. Over 61 percent of

the listings by policy area are for what the directory describes as "public policy experts."

The preponderance of expertise among anti-environmentalists appears to reside among "public policy experts" rather than with the "scientists" and "economists" that the directory purports to showcase. In only three of the 27 issue areas do "scientists" outnumber either "economists" and "public policy experts" (Air Pollution, Atmosphere and Climate Issues, Chemical and Hazardous Materials Risk). In only two areas do "economists" outnumber "scientists" and "public policy experts" (Economic Impact, Global Implications of Environmental Policies). In a total of 20 of the 27 policy areas described in the directory, "public policy experts" form the core of the "experts" for the anti-environmental lobby (Table 1).

Of particular note are several public policy fields in which science plays an especially important role, but for which the anti-environmental lobby, as represented in the directory, appears to be able to call upon very few scientists with appropriate credentials. Half of the anti-environmental experts listed for Energy Policy are "public policy experts," not "scientists" or "economists." More than half of the Waste experts listed are not "scientists" or "economists." More than 60 percent of the anti-environmental Forest Issues authorities are "public policy experts." Over 80 percent of their experts on Land Issues are "public policy experts."

None of the anti-environmental advocates counted as experts on Endangered Species are "scientists." The directory lists 21 "public policy experts" on endangered species. One example is [James Streeter](#), the policy director at the [National Wilderness Institute](#). He holds a Bachelors degree in Soviet Studies and Russian yet is listed as a "public policy expert" in 4 additional categories such as wilderness and land issues.

This glaring lack of qualified depth of expertise was also noted recently by columnist Alston Chase, a writer who, ironically, regularly supports and echoes "wise use" themes. In a Jan. 26, 1997, column in *The Washington Times*, Chase blasted the directory as a tool for politicizing science in the environmental debate. Chase wrote:

Now, thanks to their own illiteracy, conservatives are playing the misname game as well. Consider a document I received recently: The 'Directory of Environmental Scientists and Economists' published by the Environmental Policy Task Force, a Beltway outfit describing itself as "non-partisan." Some of the 'experts' listed are indeed outstanding, impartial scholars and all are fine, creative people. But most are not scientists, and many are the same old property-rights policy wonks who have been talking to each other for years.

Of the 141 individuals in this directory, by my count only 56 have Ph.D.'s - the minimum requirement for qualifying as a scientist. Thirty-two possess just a bachelor's degree, and a few have no apparent academic credentials at all.

Chase's criticisms are well founded. A look at the 23 experts mentioned most frequently in the directory (those who appear as experts in five or more fields of public policy) reveals comparatively few "scientists" and "economists" (Table 2). Of these 23 experts, only two are described as "scientists." Only six are considered "economists". The remaining 15 experts most referred to in the directory are listed as "public policy experts."

Interestingly, several prominent anti-environmental and free-market advocacy groups count their political activists among the most referenced individuals in the directory.

- Three representatives of the Political Economy Research Center (PERC), a Montana-based free-market think tank that advocates a free-market, non-regulatory approach to environmental protection.
- Three representatives of the **Competitive Enterprise Institute**, a Washington, DC-based free-/market think tank.
- Both the principal staff members of Frontiers of Freedom, former Sen. Malcolm Wallop and Myron Ebell, are amongst those with 5 or more areas of expertise, as is Ebell's former boss, American Land Rights Association

founder [Chuck Cushman](#).

- The two most senior members of the staff of the **National Wilderness Institute**, a group fighting the Endangered Species Act.

Among these 11 anti-environmental and free-market political activists can be counted only two economists, and no scientists. Only two Ph.D.'s are included in this group of 11 backlash activists (both of the economists for PERC).

#### **Corporate Backing of the Anti-Environmental Backlash**

A closer look into the political affiliations of the 23 most referenced experts in the directory reveals the presence of deep pockets of corporate support for the free-market science skeptics. Of the 23 top experts ([Table 2](#)), further investigation reveals that all but six have current or past affiliations with organizations that receive significant financial support from corporations that would benefit from a relaxed regulatory environment.

Five corporate funded anti-environmental, free-market organizations count three people each among the NCPPR's most referenced experts:

- [Cato Institute](#)-funding sources include the American Farm Bureau Federation, Amoco, ARCO, Chase Manhattan Bank, Coca-Cola, CSX Corp., Exxon, Ford Motor Co., Koch Industries, Monsanto Co., National Ammonia Co., Philip Morris, Proctor and Gamble, Toyota Motor Sales USA. Representatives in NCPPR's most referenced experts include:
  - PERC Senior Associate [Richard Stroup](#) (Cato Adjunct Scholar and Editorial Advisory Board Member)
  - PERC Executive Director [Terry Anderson](#) (Cato Adjunct Scholar)
  - University of Maryland Prof. [Julian Simon](#) (Cato Senior Fellow).
- **Competitive Enterprise Institute**-funding sources include Amoco, ARCO, Burlington Northern Railroad, Coca-Cola, CSX Corp., Dow Chemical, Ford Motor Co., General Motors, IBM, Pfizer Inc., Philip Morris Companies, Texaco, Cigna Corp.. Representatives in NCPPR's most referenced

experts include:

- CEI Fellow [Ike Sugg](#)
- CEI Director of Environmental Studies  
[Jonathan Adler](#)
- CEI Senior Environmental Scholar [R.J. Smith](#).
  
- **The Advancement of Sound Science Coalition**-funding sources include 3M, Amoco, Chevron, Dow Chemical, Exxon, General Motors, Lawrence Livermore National Laboratory, Occidental Petroleum, Philip Morris Companies, Proctor and Gamble, W.R. Grace and Co. Representatives in NCPPR's most referenced experts include:
  - PERC Senior Associate Richard Stroup (TASSC Advisor)
  - Center for the Study of American Business Director Kenneth Chilton (TASSC Advisor)
  - Kenneth Green (TASSC Advisor).
  
- **The American Council on Science and Health**-funding sources include American Cyanamid, American Meat Institute, Amoco, Anheuser-Busch, Archer Daniels Midland, Boise Cascade, Burger King, Chevron, Ciba-Geigy, Coca-Cola, Coors, Dow Chemical, DuPont, Exxon, Ford Motor Co., General Mills, General Motors, Kraft General Foods, National Agricultural Chemicals Association, NutraSweet Co. (Monsanto), Pepsi-Cola, Shell Oil, Sugar Association, Union Carbide Corp., Uniroyal Chemical Co., USX Corp. Representatives in NCPPR's most referenced experts include:
  - Laurence Kulp (ACSH Board of Scientific and Policy Advisors)
  - University of Maryland Prof. Julian Simon (ACSH Board of Scientific and Policy Advisors)
  - Purdue University Agricultural Economics Dean Emeritus Earl Butz (ACSH Board of Scientific and Policy Advisors).
  
- **Political Economy Research Center**-funding sources include Amoco, ARCO Coal, Chemical Manufacturers Association, Coca-Cola, Conoco, Pfizer. Representatives in NCPPR's most referenced experts include:
  - Richard Stroup, Senior Associate at PERC
  - Donald Leal, Senior Researcher at PERC
  - Terry Anderson, Executive Director of PERC.

Other corporate funded anti-environmental lobby organizations with representatives in the NCPPR top 23 experts include [The Heritage Foundation](#) (Heritage Fellow and former Sen. Malcolm Wallop, and former Policy Analyst John Shanahan), funded by Amoco, Amway, Ashland Oil, Boeing, Chevron, Coors, Dow Chemical, Exxon, Ford Motor Co., General Electric, General Motors, GTE Corp., IBM, Lockheed, Philip Morris Companies, R.J. Reynolds, RJR Nabisco, Shell Oil, Texaco, Union Pacific, and Union Petrochemical, and the American Land Rights Association (founder Chuck Cushman and former Washington, D.C. representative Myron Ebell), funded by ASARCO Inc., Boise Cascade, Castle Creek Minerals, Santa Fe Pacific Gold Co., U.S. Gypsum Co., and Weyerhaeuser Co. Cushman is one of the founding organizers of the "wise use" movement and has played a central role in the development of the grassroots element of the movement. Cushman's ALRA is not typically considered to be a corporate front group or think tank, but does get a portion of its funding from business sources. In fact, Cushman recently railed against People For The West! (a mining advocacy group the gets roughly 75% of its budget from mining corporations) for promoting a centralized, corporate-dominated direction in "wise use."

#### Conclusion

Despite their claims to the contrary, the anti-environmental lobby is a political movement based on conservative, free-market business principles and not on "sound science." The backlash campaign to reduce or eliminate environmental protections by no means represents a reasonable and accurate use of science as the basis of responsible public policy. Rather, it is about the misuse of science based on skeptical misrepresentations of the facts by a small set of free-market advocates who clearly understand that their anti-regulatory, free-market theories have but a limited constituency—mostly their corporate benefactors.

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#### Notes

1 A series of EWG studies have documented the significant health impacts of particulate air pollution.

One report, entitled "Something's in the Air," looked at pesticide pollution in California. Another, called "Particulate Air Pollution," reviewed the effects of air pollution in six cities and analyzed the merits of the EPA proposal. Finally, the report "First, Do No Harm," analyzed the pollution emitted from medical hazardous waste incinerators.

2 Another policy background report published by CLEAR, entitled "The Barbeque Grill Gang," described the most prominent industry-funded groups and exposed their efforts to gut the proposed clean air standards. The Air Quality Standards Coalition and the Foundation For Clean Air Progress are two organizations that were established for the sole purpose of combating stronger clean air regulations. The other organizations are established think tanks associated with the anti-regulatory, free-market right. These groups have weighed in on a number of environmental regulatory issues over the years, and routinely question the "sound science" of environmental regulations.

3 In 1995, NACA greenwashed its name by changing it to the more banal "American Crop Protection Association."

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#### Appendix A

##### The Advancement of Sound Science Coalition

This pro-industry coalition, created in 1993 to promote "sound science" in policy decision-making, is chaired by former New Mexico Gov. Garrey Caruthers. TASSC is based in the Washington, D.C. offices of the lobbying firm APCO Associates. TASSC claims a membership of over 400 corporations representing chemical, agricultural, manufacturing, oil, dairy, timber, paper and mining interests, including Amoco, Chevron, and Occidental Petroleum, as well as industry trade associations. TASSC also has a science advisory panel of over 200 members, including some of the most prominent science skeptics in America. Among them:

- [Bruce Ames](#), a professor at the University of California at Berkeley, sits on the board of three other backlash science organizations.
- [S. Fred Singer](#), who is associated with four

other backlash organizations, heads the Science and Environmental Policy Project.

- Patrick Michaels, who was the editor of *World Climate Review* magazine, disputes almost all universally accepted theories concerning global warming.

TASSC belongs to the Environmental Conservation Organization's "wise use" umbrella network. TASSC has pushed forward their science advisors to criticize studies ranging from the quality of drinking water to baby food, claiming that the reports were based on unscientific findings and are examples of scare tactics used by interest groups to drum up financial support.

#### **Environmental Policy Analysis Network**

Created and run by self-styled "public health expert" Steven Milloy, who also has launched a "Junk Science Home Page" on the Internet, the Environmental Policy Analysis Network (EPAN) is a Washington, D.C.-based think tank affiliated with the free market, anti-regulatory right. In addition to running EPAN and the Junk Science Page, Milloy is also listed in *Washington Representatives* as a lobbyist for the EOP Group, a Washington, D.C.-based lobbying firm that represents the American Crop Protection Association, the Chlorine Chemistry Council, Edison Electric Institute, Fort Howard Corp., Monsanto, and the International Food Additives Council, among others. Under Milloy's personal listing of groups he represents through the OEP Group are three clients: Fort Howard Corp. (paper), the International Food Additives Association (chemicals), Monsanto (more chemicals), and the National Mining Association.

Milloy's recent project is *Science Without Sense* published by the Cato Institute, a Washington, D.C.-based free market think tank. The book is a tongue-in-cheek look at the field of risk assessment. Milloy contends that science and the "scientific method" have been corrupted by bureaucrats and environmentalists who twist and turn data to fit their agendas. He also heaps criticism on public health experts whose findings are the basis for the claims of consumer advocates. He believes recent declines in funding have forced some advocates to trumpet the claims of "health scares" in an effort to secure financial contributions. His book is billed as a

step-by-step method for researchers to find a risk that reaps profits while generating publicity.

On March 28, 1997, in his regular "Junk Science Update" e-mail post, Milloy announced that he had been hired to serve as the executive director of The Advancement of Sound Science Coalition.

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#### **Appendix B**

##### **National Center for Public Policy Research**

The National Center for Public Policy Research is considered to be the Washington, D.C.-based anti-regulatory think tank currently most closely associated with the "wise use" element of the anti-environmental lobby. In addition to convening regular meetings of the Environmental Policy Task Force, a strategy session attended by leading anti-environmental lobby activists, and publishing periodic reports dealing with environmental issues, NCPPR staff members participate in the infrequent "wise use" demonstrations held in Washington, D.C. (such as the one in March 1996, that coincided with the release of the League of Conservation Voters Scorecard in which several protesters picketed outside the National Press Club while dressed in prisoner costumes).

The NCPPR, in effect, appears to act as a bridge between the Washington, D.C.-based think tank element of the anti-environmental movement, including such groups as the Cato Institute, the Competitive Enterprise Institute and Citizens for a Sound Economy, and the activist element of "wise use," including Chuck Cushman's League of Property Rights Voters and American Land Rights Association, and Myron Ebell's Frontiers of Freedom (Ebell was formerly Cushman's Washington, D.C. representative). The NCPPR promotes grassroots conservative activism in a variety of issue areas.

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