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# **Committee Meeting**

of

## **SENATE ENVIRONMENT COMMITTEE**

**Senate Bill No. 2018**

*(Prohibits the sale of gasoline containing MTBE)*

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**LOCATION:** Committee Room 10  
State House Annex  
Trenton, New Jersey

**DATE:** April 27, 2005  
11:00 a.m.

### **MEMBERS OF COMMITTEE PRESENT:**

Senator Bob Smith, Chair  
Senator Stephen M. Sweeney, Vice Chair  
Senator John H. Adler  
Senator Henry P. McNamara



### **ALSO PRESENT:**

Algis P. Matioska  
*Office of Legislative Services*  
*Committee Aide*

Kevil Duhon  
*Senate Majority*  
*Committee Aide*

John Hutchison  
*Senate Republican*  
*Committee Aide*

*Meeting Recorded and Transcribed by*  
The Office of Legislative Services, Public Information Office,  
Hearing Unit, State House Annex, PO 068, Trenton, New Jersey

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**SENATOR BOB SMITH (Chair):** Today, we're having a hearing on MTBE -- a very, very, very important piece of legislation, and an important environmental issue for this state.

Just so everybody's aware, this is the budget break. And normally committees -- other committees than Appropriations don't -- are not meeting. The Senate Environment Committee, we like to meet during the budget break because there are so many very important issues. And this is a chance for us to elicit testimony, get varying points of view, and decide what we should be doing. But there is no bill release planned for today, just as last week when we had our CAFRA hearing. There was no bill released. But we looked at some very interesting pieces of legislation.

Today, of course, the starting point for the discussion is Senator Sweeney's MTBE bill, which is -- which starts the discussion. I'm glad to report that we have a variety of points of view -- many, many people who have signed up to testify. And it's kind of interesting to see who is with who, on which side of the issue.

So, without further ado, let me-- And we're going to try to switch back and forth between the various points of view.

Why don't I start with Mr. William Cooke, Citizens Campaign for the Environment.

Mr. Cooke, if you'd come forward.

**WILLIAM COOKE:** Mr. Chairman, thank you -- and other members -- for the opportunity to come before you today.

I have some copies of my testimony that I'd be happy to provide to you and your staff. If you don't mind, I won't read it. I'll simply spend a few minutes talking about the issue.

Thank you.

My name is William Cooke. I'm the Director of Government Relations for Citizens Campaign for the Environment. We're a 501C4, not-for-profit. We work on public health and environmental issues in New York, Connecticut. I also lobby in Washington, D.C. We're also now registered here.

The reason I come before you today is because Citizens Campaign for the Environment has been here before on the issue of MTBE. We're the lead organization that got the state legislatures in New York and Connecticut to ban the substance a number of years ago. We were also the lead organization that fought against the New York Mercantile Exchange and the industry as the phase-in time came.

We have some concerns with what we have read in the media and what has been offered on this issue. And I want to spend just a few minutes talking about those concerns and some misinformation that has been put out there.

The first area of discussion is related to air quality when you take MTBE out of the gas. Now, we looked at EPA sampling data before the MTBE phase out, and post-, in California, New York, and Connecticut. And, Senator, the air quality, after removing MTBE, according to the Environmental Protection Agency, was improved, was better than with MTBE.

We believe at this point that anyone who raises air issues related to removing MTBE is not looking at the facts. Now, if they want to question the Federal government's air sampling or the science, that's their business. But the EPA is the EPA.

The second issue where we have some concerns is the cost. MTBE, on the Chicago spot a few days ago, was around \$1.70 a gallon. Ethanol, on the same spot market, when I checked it two or three days ago, was \$.75, compared to \$1.70.

We hear from the industry, and we-- And the reason I'm mentioning this is, we heard this same stuff for years in New York and Connecticut. We hear from the industry: "Oh, if you take MTBE out of the gas, the price will go up." Well, Senator, I've got to ask you-- I don't know what economics courses they took. But how do you take out an expensive constituent, replace it with one that's less than half the price, and then say the price is going to go up? And, in fact, what happened in New York and Connecticut bears this out. There was no price spikes. There was no boutique fuel issues. What they said was not factually accurate. And the price is the price. The Chicago spot is the Chicago spot. If you take MTBE out, the price of gas at the pump should go down.

Another area where the industry's representatives have been raising some concerns -- and, again, not legitimate -- is the supply. "Well, you know, if you take MTBE out, there's going to be supply problems." Well, Reuters just reported -- literally a few days ago -- that there are supply problems with MTBE in the New York area, and that is affecting the price at the pump and driving it up.

Ethanol, on the other hand-- I spoke the day before yesterday to a national distributor of ethanol. I said, "Hey, I'm hearing these stories about shortages." This guy's comments were, "Look, I've got this stuff coming out of my ears. There is no shortage." We, in fact, have a pretty big surplus, and I'm not expecting that to change in the foreseeable future.

Now, as you folks understand, when an oil company contracts for ethanol -- they contract -- they get a fixed price for a long period of time. The spot is the most volatile. We're still coming in at less than half the price. The supply is handled through ship, barge, and train car. So it's a diversified supply system. We're awash in ethanol, which is the considered replacement, and it's a lot cheaper than MTBE.

The big issue on this is not what you substitute. In fact, we're not an ethanol group. We're not even interested. The big issue is MTBE and what it does in drinking water. The science is absolutely clear on this. In New York, we had the state reduce the drinking water standard to 10 parts per billion. We lobbied for five -- 10 parts per billion. You can smell this stuff in the water at eight. And I would say, quite reasonably, I don't think you'd expect your families to be drinking it. I certainly wouldn't expect mine.

The science on the groundwater contamination for MTBE is absolutely clear and irrefutable. It travels in groundwater more rapidly and descends more rapidly than the other constituents in gasoline. And I suspect you'll hear from people who will talk about remediation technology and the fact that we are not confident we can even remediate MTBE pollution when it's in the groundwater.

Now, you can pump and treat. I know a lot about pumping and treating. And you can pump and treat for years and years. And when you're done, you probably had no net impact. What we know is, every day the State of New Jersey delays getting rid of MTBE, there are more contamination plumes, there are more issues.

We also would remind you folks that while I'm sitting here speaking to you, there are lobbyists for the MTBE industry in Washington, working very aggressively to get complete liability relief for what they have done. Whether or not they will be successful, I'm not sure. Do they have a great chance? You bet. What's that mean to us? It means that New Jersey taxpayers will be forced to be financially responsible for cleaning up the MTBE contamination in New Jersey.

Now, we had people come to us when we were working in New York and Connecticut on this issue. They came to us and said, "Well, this is really a Federal issue. We really need to let the Federal government lead the way." That was six years ago. Last time I checked, Tom "The Hammer" DeLay could have fixed this years ago. Well, "The Hammer" decided not to. Last time I checked, he's still in power.

I say to folks who say, "Let's let the Federal government lead--" Well, I won't tell you what I say to them. But suffice it to say, I'm encouraging you folks, I'm encouraging the legislative body in New Jersey to advance this bill as rapidly as possible. Because the bottom line is, this stuff is a poison we've got to get out of our water. The science is clear. The alternatives are clear. And the lack of Federal leadership is clear.

Thank you for your time today.

SENATOR SMITH: When you get a chance today, make sure you read your *Doonsbury* strip this morning. You'll enjoy it.

MR. COOKE: Thank you, Senator. Thank you.

SENATOR SMITH: Charles T. Drevna, from the National Petrochemical and Refiners Association.

Mr. Drevna.

**C H A R L E S T. D R E V N A:** Good morning, Senator Smith -- Chairman Smith, and Vice Chair Sweeney.

I appreciate the opportunity to appear before you today to discuss motor fuels policy in the State of New Jersey and the potential impact that modifications -- especially bans and, therefore, defacto mandates -- will have.

I am Charlie Drevna, and I am Director of Advocacy for the National Petrochemical and Refiners Association. We represent virtually every refiner in the country: major integrateds, major independents, mid-size, and the smallest of the small.

Let me make one thing I think, to the Committee, perfectly clear today.

Oh, I'm sorry, I did have some written testimony that, I'm sure, you guys don't want me to read, nor do I want to read it. So I will do the same thing as the previous witness and try to summarize.

NPRA-- We support the orderly evolution of clean-burning transportation fuels. In fact, EPA states that 70 percent of all emissions reductions since the Clean Air Act -- the original Clean Air Act in '70 -- is due to clean fuels and vehicle programs. That's a remarkable statistic when you consider all the stationary source kinds of efforts that have gone on. Seventy

percent of all the emissions that have been reduced have been reduced by clean cars and clean fuels.

Unfortunately, as we have taken these tremendous strides in improving air quality, the supply side of the energy equation has, at best, been ignored. And my comments today, I hope, will bring you to the conclusions that any actions taken by New Jersey must maintain the adequate supply of fuel to avoid potential marketplace disruption and, two, that documented air quality gains made by the use of reformed leaded gasoline in this state must be maintained.

And I'm in complete disagreement with the previous witness. Simplistic answers to a complex question are not only unfounded but, I believe, detrimental. There is a lot more that goes into the substitution of one fuel blend stock for another. If you take-- If you substitute 12-year -- 20-year-old single malt scotch for a cheap vodka -- you could use the same glass and the same ice, you're going to save money. Unfortunately, that's not the way the refinery system works in this country or any other country. And there's a lot more complex and very expensive capital expenditures that must be made in order to do those kinds of substitution. So it's not merely substituting one fuel blend stock for another.

But let me also say that NPRA-- We are not pro-MTBE, nor anti-ethanol, nor pro-ethanol or anti-MTBE. We are pro fuel supply and marketplace stability. So bans, given the circumstances where we find ourselves in the Northeast, in general -- and particularly in New Jersey -- simply act as defacto mandates, given the Federal reformulated gasoline

requirement, that each gallon of gasoline in these areas contain at least a 2 percent oxygenate by weight.

You ban MTBE, ethanol is your only option. And, again, ethanol is a great component. We are going to use a lot of ethanol in this country on a going-forward basis, simply because we don't have the refining capacity to produce all the gasoline that we need without these valuable blend stocks. But you do have to look at making this mandate in New Jersey, and elsewhere, when it -- in the air quality aspects, and the supply.

The previous witness didn't talk about the Mobile Source Air Toxics program, or MSATs. Banning MTBE is going to make it very, very difficult for refiners to meet their 1999-2000 baselines and continue to make -- to provide the toxic reductions required. The new, eight-hour ozone air standard for national (indiscernible) air quality for ozone -- we don't know where that's going to take us in the fuels region. All these things have to be investigated and understood -- the ramifications -- we believe, before any action should be taken.

We've always opposed mandates, as NPR. We opposed the mandate in the 1990 Clean Air Act. We oppose one now, whether it's by the Federal government or by individual states. Because mandates, we believe, are inefficient mechanisms that brought us to where we are today.

Again, on the supply implications, it would be great if we could say the refineries in the region -- and particularly the refineries home to New Jersey -- if they could provide the fuel for the New Jersey driving public. That's not the case. Gasoline is a regional market. Forty percent of the gasoline provided to the mid-Atlantic and New England states come from local refineries: New

Jersey, Delaware, Pennsylvania, Virginia. Forty percent comes from Gulf Coast refineries: the Houston area, Louisiana, via the Colonial Pipeline. Twenty percent comes in from imports as finished product. And I'm not talking crude oil. I'm talking finished products, either gasoline or gasoline blend stocks.

So what happens if New Jersey and other states decide to ban MTBE? Well, you're basing your whole supply on a limited number of refineries. You're shrinking the pool of available sources. All refineries, all the importers may not choose to make that blend stock that you need for ethanol, which is a much more expensive blend stock to make.

Will the refineries do it? Absolutely, we'll do it. If you go ban -- want to ban MTBE, our members will do the best job they can in the area to provide the gasoline your public needs and deserves. We can't guarantee there won't be disruptions with no ban, but it just makes that pool of availability shrink.

We don't-- Again, we don't dislike ethanol. I think people have a misconception about where NPRA and our members are on ethanol. We just don't want to be told where to use it, when to use it, and how much to use. I think we've been there and done that on other mandates. And, probably, that's why I'm sitting here testifying today. Again, I can't emphasize enough that bans and mandates are the most inefficient mechanisms to provide the public with what they desire.

On the air quality-- That's an interesting point the previous witness stated. It's interesting to note that in that same time frame-- Again, the simplistic answers are-- There was the introduction, in January 2004, of the Tier 2 sulfur gasoline in all gasoline across the country. That had a

tremendous-- And, plus, the new model year cars had better emissions controls. That had tremendous impact on air pollution, air emissions.

If I maintain-- If you look at apples to apples -- that, especially in the summer, you will see an increase in VOC emissions by the use of ethanol rather than -- with RFG -- rather than the use of MTBE. And the California Energy Air Resources Board has documented this. They banned MTBE, were forced to use ethanol because of the Federal mandate, and they now have a 40-ton per day VOC increase in emissions that they don't know what to do with. And they're going to have to revise their state implementation plans.

Again, a little care and a little analysis before we proceed, I think, is in order. It's the prudent thing to do. Know what the outcome is going to be before we act.

So, let me make some recommendations on what we can do.

Oh, one other thing I'd like to mention-- The New Jersey Department of Environmental Protection has stated that MTBE contamination is not currently a public health concern in the New Jersey public drinking water supplies. So I think we should make that point clear -- that the New Jersey Department of Environmental Protection states that it's not a public health concern. That's not to say it should be there. No gasoline component should be in water. We don't need it there, it shouldn't be there. It belongs in secure pipes and tanks. And the refining industry has done a lot to help prevent contamination. But, again, to ban it is not the way to go.

The recommendations I can make-- There is an energy bill out there. There is an energy bill that will harmonize regional gasoline by simply removing that burdensome 2 percent requirement for RFG. If you allow the

refining industry to make gasoline the way we know how to make it, to make it the best way and the cleanest way we can, again, without bans and mandates, you will solve a lot of your problems, as far as patchwork bans of this state versus this state. Because the 2 percent requirement is the driving force behind those-- I saw a map here before of all the different boutique fuels in the country. You eliminate the 2 percent requirement, a lot of those will go away.

Here's another thing you can do. California and New York have submitted waivers of the 2 percent requirement on the oxygen -- for the oxygen mandate. California, as a matter of fact, has the court case that I don't want to say they won, because it's not over yet -- but the court has directed the EPA to do a better job of figuring out what the real deal is in California and why the 2 percent requirement and ethanol, together, may not be the best thing for the state, vis á vis air pollution.

So, in summary, I'd just like to say that, all too often-- We have transportation, energy, and environmental laws and regulations -- they're always intertwined. But, all too often, they're most debated in different committees, whether it be the Federal or state committees. These are intertwined. You have to know and understand what the impact of rules, and laws, and regulations have on each of these.

So our thoughts are, cooperative efforts between states, regions, and the industries, including the feds, to get the job done-- If you would, somehow, get your State Senators to support that energy bill, your problems will go away.

Thank you.

And I'd be happy to take any questions you might have.

SENATOR SMITH: Thank you, Mr. Drevna.

Are there any questions?

SENATOR ADLER: Yes.

SENATOR SMITH: Senator Adler.

SENATOR ADLER: Mr. Drevna, you work in Washington, or do you work around the country?

MR. DREVNA: Oh, I'm sorry. Yes, sir. I work out of Washington.

SENATOR ADLER: What's your sense of the likelihood that either New York or California will be granted the EPA waiver that you presented?

MR. DREVNA: Well, I think-- If you look-- If you strip out all (indiscernible), which is pretty difficult to do-- But they both should happen. But they're out there by themselves. If you want to put pressure-- Connecticut, New Jersey, Delaware, Rhode Island -- if you all send a message to Washington that this is about as much fun as you want to have with this 2 percent requirement--

SENATOR ADLER: We voted for Kerry. We sent a message to Washington. It didn't help. (laughter)

MR. DREVNA: Touché.

SENATOR McNAMARA: Better luck next time.

SENATOR SMITH: Senator Sweeney.

SENATOR SWEENEY: Just one quick comment, because I know you have a lot of testimony.

SENATOR SMITH: Sure.

SENATOR SWEENEY: Because the DEP, for whatever reason, says it's okay to have MTBE in the -- it's not a problem-- When you can't drink the water, it's a problem. I don't care what the DEP says. If you can't drink the water -- and Senator McNamara probably knows better than most -- it's a problem. DEP needs to look at that again.

MR. DREVNA: Can I make a comment on that?

SENATOR SMITH: Sure.

MR. DREVNA: Senator Sweeney, I couldn't agree more. As I said, it shouldn't be in anyone's water, whether it's public, private, or however you get your water. And, believe me, the industry does not want it there. We do our best to clean these things up as they happen. Unfortunately, they happen. But there are better ways to control it than bans.

SENATOR SMITH: Thank you, Mr. Drevna.

MR. DREVNA: Thank you very much.

SENATOR SMITH: Let me ask the Ringwood delegation to come forward.

Councilwoman Joanne Atlas, Mr. Ray Dwyer, and Mr. Sam Close, if you'd come forward and give your testimony, we'd appreciate it.

**C O U N C I L W O M A N   J O A N N E   A T L A S:** Good morning.

I'm Joanne Atlas, Councilwoman from Ringwood.

It's a pleasure to see all of you again.

The Borough of Ringwood, which as you know is in the heart of the Highlands, has been hard-hit by MTBE spills, as you will see from the testimony from the two residents next to me.

It's costing more than \$4 million to provide the homes with municipal water. And this does not address the cleanup of the groundwater.

Frankly, Senators, we have a mess on our hands. MTBE is swirling around less than a mile from the Wanaque Reservoir, which provides two million New Jersey residents with drinking water. And only 400 feet away from one of the spills is our municipal water supply. We need to stop the supply of MTBE from continuing to come into Ringwood and other towns.

Recreational lakes are downstream. Our town is known for its swimmable lakes, it's pristine waters, and this severely jeopardizes it and probably has effected it irrevocably. It's a very sad story.

Last year, Ringwood passed a resolution calling for a ban on MTBE, which was then adopted by the League of Municipalities. And you have a copy of that resolution, which I'm a sponsor of. And in our resolution, we take exception to ethanol being an alternative. We still stand by that, and that is why I cannot embrace this bill. I also find fault with it because it will take us until 2008 before it will be enacted. And in the meantime, MTBE will continue to be pumped into the aquifers.

I believe we need to stop this. And I agree with the previous speaker that we should seek a waiver to the 2 percent and ignore ethanol, bypass ethanol, and just take our way -- the way it comes to us.

SENATOR SMITH: Councilwoman, just so I understand, you're in favor of an MTBE ban.

COUNCILWOMAN ATLAS: Absolutely.

SENATOR SMITH: But you believe the bill is not aggressive enough.

COUNCILWOMAN ATLAS: It takes too long -- 2008 is too far in the future. It should be sooner than that. It needs to be sooner than that. This is a crisis.

SENATOR SMITH: Okay.

COUNCILWOMAN ATLAS: And I also am not in favor of relying on ethanol as a substitute. It's my belief that we don't need this. And I think testimony today, from experts who know more than I do, will show that it's not a good route to take. Ethanol is not a good route to take. Rather, we should get the 2 percent waiver and rely on conservation, rely on the fact that we have cleaner-burning engines.

SENATOR SMITH: Okay, thank you.

COUNCILWOMAN ATLAS: So I will pass it on to the residents.

**R A Y D W Y E R:** Good morning.

Can you hear me?

SENATOR SMITH: Yes, sir.

MR. DWYER: Okay.

My name is Ray Dwyer. I'm Co-Chairman of the Wild-Oak Neighborhood Action Group. I'm going to read from a statement, because I'm not used to--

SENATOR SMITH: Sure.

MR. DWYER: We're of Ringwood, New Jersey. For the record, I live at 14 Wildwood Terrace, in Ringwood.

I'd like to thank the members of the Senate Environment Committee for giving me this opportunity to speak to you this morning.

Wild-Oak NAG, as we became quickly known throughout Ringwood, is a group of residents representing 75 homes on Wildwood Terrace, Oakwood Drive, and Skyline Drive in Ringwood. Last year we found that many of our wells were contaminated with MTBE, TBA, and other contaminants. We were the second Ringwood neighborhood in as many years to deal with an MTBE contamination issue.

Wild-Oak NAG's mission was to bring about a permanent solution to a contamination issue in a timely manner. We elected officers and set out to find the solution as quickly as possible.

I'm going to skip that. I was just going to introduce Sam Close. He's sitting next to me. He's the Co-Chair with me. He's going to speak when I'm done.

In March 2004, residents of our neighborhood were notified by the borough that there was a possible contamination of our private wells by a suspected gasoline leak at a Citgo fueling station up-gradient from our neighborhood. We were informed that a testing firm would coordinate sampling of our wells and determine if any such contamination had occurred.

As tests were performed and results started to trickle into the neighborhood, we found that several homes were contaminated with MTBE. We witnessed elaborate filtering systems, or POETS, point of entry treatment systems, being installed at some of our neighbors homes. Imagine seeing a POET system being installed on your neighbor's home. You watch as they tell you that their water level -- their water has high levels of MTBE -- over 400 parts per billion. Now imagine that you quite possibly might be drinking the same water.

The following week, another neighbor just next door to your own home is having a POET installed, as well. Their MTBE levels also exceed the State limit. In fact, MTBE in their well was closer to 500 parts per billion. Their TBA levels were also well over 1,000 parts per billion. Yet, you've been told that your levels of MTBE are below the State standard of 70 parts per billion. So, therefore, no POET is needed for your home. Do you drink the water? This was our dilemma.

Do we need-- Do we continue to use unfiltered water, knowing the levels of MTBE found just next door? In fact, when all the results were in, nearly 80 percent of our neighborhood showed some levels of MTBE contamination, 80 percent. Many of us began to purchase bottled water for our families, because we were unsure of how safe or unsafe our drinking water was.

Ringwood is mostly bedrock, which geologists have told me makes it nearly impossible to determine the path of the contaminant in the aquifer deep below the surface.

We needed to find a permanent solution. POET systems were a temporary fix. But who would maintain them? How long would they be required? How often would our wells be tested? And who would do the testing? There were many questions and few answers.

We began by doing some research on our own. We discovered that MTBE contamination in our neighborhood dates back to 1998 and that, in some cases, there were similar issues years before that. We addressed the mayor and council, contacted our Senators and Assemblymen, and reached out

to anyone we felt could help us find a solution. Senator McNamara and I had several conversations last fall regarding our neighborhood.

Senator, I'd like to publicly thank you for always returning my calls, and your assistance and guidance as we set out to find our solution.

Our mayor and council was also very helpful. They hired an environmental attorney to help us with our cause. This attorney worked diligently on our behalf and aided us in putting together a permanent remediation plan, which is now underway.

In December, the DEP -- New Jersey DEP announced that a municipal water line would be installed to all our homes, and we would all be put on city water. The project would be funded -- nearly a million dollars for the water line alone -- using grants from the State cleanup funds. Governor Codey signed a funding order on December 9, 2004. We're currently in the process of obtaining permits. And the borough will then bid it, and the project will begin. Right now, we're still all using our wells.

The borough of Ringwood is temporarily supplying bottled water to those of us in the neighborhood. Supply will continue until the water line is installed. And as I say, construction is hoped to start late this summer.

Senators, this Committee can take steps to ensure that we, perhaps, will be the last neighborhood to deal with an MTBE issue. As you consider a ban on MTBE throughout the State of New Jersey, we ask that you consider the effects this additive has had on our neighbors and others like us. We applaud your consideration of this ban.

As you know, New Jersey has one of the highest actionable levels of MTBE in the country. Seventy parts per billion, in many cases, is double,

even triple, that of other states. To my knowledge, some 17 states have banned or limited the use of MTBE, or have legislation panning -- pending about the additive.

We hope this Committee recommends-- I'm sorry. We hope, through this Committee's recommendations, New Jersey will join those who have put the ban in place. Just last week, as you know was said before, Congress approved the energy policy which contains certain protections for the manufacturers and distributors of MTBE. Measures to remove this language were defeated. This protection will place a financial burden of future cleanup remediation efforts of MTBE contamination fields on the limited public funding sources and cleanup funds that are already overburdened. There will be no possibility of cost recovery for those who produce this contaminant. We need to protect our state from future contaminations.

I respectfully ask that you give every consideration to banning MTBE throughout the State of New Jersey. For as long as there are underground gasoline storage tanks, there will be fuel leaks associated with those tanks. Each time a gasoline tank leaks, the environment suffers and, perhaps, another neighborhood like ours will suffer from the contamination issues we have dealt with for many years.

In closing, I would like to thank the Committee for allowing us to testify.

I'd like to thank Ringwood Mayor Taule, and the Ringwood Borough Council, Borough Engineer Ed Haack; and the New Jersey DEP remediation staff of Commissioner Joe Seebode, Tom Cozzi, and their staff for

helping us find a solution and working with us as diligently as they have. Our neighborhood has benefited from their work, and we appreciate it.

It was, no doubt, a stressful time for our neighborhood. Many of us who did not know of the contaminants in our water-- We can only hope that our testimony here today will help to prevent other neighborhoods throughout the state from experiencing the same issues that we have.

Thank you.

SENATOR SMITH: Mr. Close, was there anything you wanted to say?

**S A M U E L H. C L O S E:** Yes.

As Ray introduced me, my name is Sam Close. I'm also a resident of Ringwood, also a Co-Chair of Wild-Oak Neighborhood Action Group -- as Ray indicated -- which was founded to assist in a remediation of the MTBE contamination of our water supply. I'm also a member of the Ringwood Environmental Commission.

I have just a few comments to add to Ray's. And I thank you for the opportunity to do so.

When we first learned of MTBE contamination of our private wells, it would be an understatement to say there was genuine concern, a lack of knowledge, and a sense of disbelief. How could something so harmful be introduced into our lives and the environment, was a question I was often asked.

In the months that followed, we quickly learned much about MTBE, and our concerns were elevated beyond concern to well-founded fears and anxiety. As we learned MTBE was linked to a wide range of illnesses,

including respiratory and neurological impairment, and may be linked to cancer, we began to think in more personal terms. Illnesses we may have gone through, or those our children have endured-- We have seen our neighbors suffer illnesses, and some died as a result. We know of 14 neighbors in our MTBE contamination zone who have died of cancer or are currently fighting this disease. We know of young children with glaucoma, which is unheard of in people their age. We know of adults with skin lesions that cannot be treated. The underlying questions remain unanswered. Are they linked to MTBE? Will, one day, we, our children, or another neighbor experience a devastating illness that will also one day be linked to MTBE? The questions are rhetorical. We don't have the answer. We do know that we continue to live with this fear and anxiety and suspicion, as do our children, for the bottled water we now rely upon is our daily reminder. There is poison in our well water. Don't drink it.

We have also witnessed the despair of our neighbors when they learned MTBE and its byproduct, TBA, had contaminated their private wells. We have seen elaborate water filtration systems installed, diminishing living space and detracting from the value of our homes. We have seen our entire neighborhood stigmatized by MTBE contamination, and witnessed real estate closings fall apart, as well. We have a stamp on our collective neighborhood that reads, "Don't buy a home here. The water is poisoned, causing personal hardship and financial loss to our residents."

We are extremely grateful to our community leaders and the New Jersey Department of Environmental Protection for moving swiftly with the support and funding to resolve our crisis for the future. Yet we remain fearful

of the damage that may have already been done to our health and to our environment. The cleanup of the environment has yet to be addressed, and the nature of the contamination creates the very real possibility that yet another section of our community may one day be affected.

We also know we are not alone in our plight. There are countless cases of MTBE contamination nationwide and other neighborhoods in crisis, many right here in New Jersey. There are nearly 200 families in our community alone that are undergoing remediation efforts, as a result of MTBE contamination in two separate occasions just in the past five years. Despite increasing knowledge of MTBE's harmful, toxic properties, and the added characteristic as a possible carcinogen, it is still used as an additive. For as long as MTBE continues to be used, and used for a noble cause to be sure, it's injuring us and others in the process and destroying our environment. We also know that there may be viable alternatives to MTBE presently being considered. But these need to be fully assessed for their long-term impact before they are introduced.

Pending legislation is a step forward. Within this legislation, MTBE's harmful properties are well-documented. This additive, this poison, needs to be banned without delay. To this end, I ask this Senate leadership to take a visionary step forward. In reference to pending legislative bill S-2018, banning the sale of gasoline containing MTBE beginning January 1, 2008, I call on the New Jersey State Senate leadership to seek immediate exemption from the Federal Clean Air Act Amendment of 1990 and prohibit the sale of gasoline containing MTBE immediately, with full phase-out by January 1, 2006. New Jersey can provide leadership to the nation in adopting this

amendment and in passing this legislation. And as we explore options, let's be certain the alternative will not only ensure clean air, but be people- and environmentally friendly.

I strongly urge Senate leadership to move forward without delay. While significant damage has already been done, let's take the corrective steps today to ensure the health and safety of the generations that follow and preserve the purity of our water, one of our most valuable natural resources.

In closing, I recently read, and I quote, "The proper function of government is to do for the people those things that have to be done, but cannot be done, or done as well by an individual." As an individual, I cannot enact legislation to ban this chemical from our lives, nor protect the generations that follow. I cannot push through my proposed amendment to this critical legislation as well. But I call on you today, as leaders who can, to take the appropriate action to enact this vital legislation, and to do so without untimely delay.

Thank you very much.

SENATOR SMITH: Thank you, Mr. Close, Mr. Dwyer, Councilwoman Atlas. We appreciate your testimony.

COUNCILWOMAN ATLAS: Thank you very much.

SENATOR SMITH: Mr. Jeffrey Michaels, representing Valero Energy, indicated that Valero is opposed to the bill, but he had no desire to speak on the issue this morning.

Mr. Barry Grossman, Oxybusters. Mr. Grossman -- in favor of the bill.

**B A R R Y G R O S S M A N:** It's ironic that Oxybusters started in New Jersey, and yet it is one of the only states in the nation, so far, not to have taken any action to ban MTBE. Even New York and Connecticut have eliminated it from their gasoline supply.

It is also ironic that Rutgers University scientists conducted studies and concluded five years ago that it causes serious problems.

New Jersey, you have failed us.

**SENATOR SMITH:** Have a nice day, Mr. Grossman.

Mr. Tittel, opposed to the bill -- from the Sierra Club.

**SENATOR ADLER:** No time for questions for--

**SENATOR SMITH:** I guess not. (laughter)

**J E F F T I T T E L:** Well, that's a good thing, I guess.

**SENATOR SWEENEY:** More time for Jeff.

**MR. TITTEL:** We oppose the bill in its current form, and it's not because we support MTBE. We think that MTBE should be removed.

I just wanted to give a little history on how we got MTBE, so you understand one of the reasons that oxygenates are no longer necessary.

Back in 1990, when the Clean Air Act was passed, and it required the oxygenate mandate, most of the vehicles in the United States were carbureted. And at that time, what happened was, there was a fairly high level -- because of combustion with carburetors -- of carbon monoxide. So oxygenates were added to reduce the levels of carbon monoxide. And that's the purpose of either MTBE or ethanol.

But since that time the technology has changed. And most cars today are fuel-injected. And fuel injectors have an oxygen sensor, and they

actually inject more oxygen, if you keep it fairly balanced through the computer, into the gasoline so it burns cleaner. And what we've seen, because of fuel injectors and reformulated gasoline -- a major drop in carbon monoxide in our tailpipe emissions.

And so the reason that we put oxygenates, in the first place, into automobiles is no longer there. And we believe that the 2 percent oxygen requirement should be repealed, that it's no longer necessary, and, in fact, it's causing more damage than it causes good. And that's where we would like to see New Jersey take it's position -- on not only banning MTBE and going for the waiver, but pushing for the repeal of the 2 percent requirement. Because it's not -- it's something that's just -- it's an unnecessary regulation at this point that actually can hurt the environment, both because of MTBE's impact on water quality-- And we believe that the Senate Environment Committee should hold hearings some time in the future, because I think New Jersey's standard of 70 parts per billion is way to high. And other states have dropped it to between eight and 10 parts per billion. And I think we should look at why New Jersey isn't being more aggressive in trying to set strict standards for MTBE in our groundwater. MTBE was first found in groundwater in New Jersey in Rockaway, by a Shell gas station.

I also want to talk a little bit about -- being someone who is from Ringwood. My address is still 167 Snakeden Road, in Ringwood. And one of the reasons that this community along Skyline Drive has this problem is because of bad planning. I was involved in the community at the time when we opposed that gas station. And the citizens of that neighborhood actually sued to prevent it, because they were afraid of groundwater contamination.

And at the time, the town gave it a use variance to build it next -- to put it next to a trout stream. And these were the consequences that the citizens, at that time who objected to that gas station, now have to live with. So it's a good example of what happens when you don't plan properly.

Going on to ethanol, and why we don't support this bill in its current form. It's that the Sierra Club -- and this is a national policy of the Sierra Club -- believes that ethanol is not a proper replacement. And, in fact, we should get rid of oxygenates all together. Ethanol, itself, uses more energy to create than you get from it, because of having to plant the crops, water the crops, fertilize them, tender the crops, harvest, to ship it to market, and then produce ethanol. And, in fact, you get air pollution impacts because of tractors, trucks, chemical plants, so on and so forth.

The bigger issue for us is not just that, it's that ethanol evaporates at a very low temperature. Ninety degrees in your gas tank causes evaporative emissions. And so what happens is that even on a warm, Spring day like yesterday, where it's 70, your gas tank -- especially if you're in traffic -- will hit that level. And your volatile organic compounds will go up because of evaporation, as will ground level ozone.

And the concern that we have is that ethanol being used in warmer months will create a whole new air quality problem for New Jersey. New Jersey is already out of compliance for the eight-hour ozone level. In fact, I think every county in New Jersey is out of compliance. Our concern is that it will put New Jersey further out of compliance, as what it's doing to California. And that, in turn, could actually lead to a loss in highway dollars.

So, here again, we've got to-- This is something I think Senator McNamara would appreciate. Here we have one agency of government trying to force oxygenates on us. The only alternative is ethanol, which now creates another problem for ozone, which causes another mandate and a heavy hand on this side. And I think that really is the problem. We really need to get rid of the use of oxygenates, because ethanol is not a proper alternative because of its other environmental problems.

The other point that I wanted to make is that the Sierra Club -- and this gets back to the MTBE issue -- did a study about a week or so -- a little over a week ago. And it showed that New Jersey has the eighth worst record in the nation in removing underground storage tanks. We are-- We still have over 3,845 tanks -- mostly fuel tanks -- that are still in the ground, that are leaking and causing problems. And yet we haven't had the leadership to remove those tanks. We're the eighth worst. We're tied with South Carolina. And I think that's another issue that the Senate Environment Committee should also look at. Because why are we falling so far behind? Why do we have so many tanks still in the ground? And what's the impact that it's having to the environment, especially when we have programs to get rid of them?

Again, I just wanted to, sort of, end that we would support this legislation to ban MTBE if we would include seeking a waiver and also putting in language to try to remove the 2 percent oxygenate requirement. Because we think it's an unnecessary additive at this time.

And just one other point is that, every year, New Jersey and Trenton seems to get stranger and stranger. Last year was a very bizarre year.

This year, we've had a whale come up the Delaware. And now I'm agreeing with Hal Bozarth. So it's definitely a weird year. (laughter)

SENATOR SMITH: Our understanding of reality is shaken at this point.

MR. TITTEL: I think the sky just turned pink.

SENATOR SMITH: Senator Adler.

SENATOR ADLER: Same question I asked Mr. Drevna. Do you have a sense, Jeff, of the likelihood of an EPA waiver of this 2 percent requirement for New Jersey, or if there are any other states that have already been seeking it?

MR. TITTEL: I think it may take a lawsuit, to fall in with California to do it. But I also think it can take push by a congressional delegation. I think that's been-- One of the problems has been-- Archer Daniels Midland and its lobbying powers in Washington should try to block the repeal of the 2 percent oxygenate waiver. And I think that part of New Jersey going on record, calling for the repeal of the 2 percent, as well as pushing for a ban of MTBE and asking for the waiver, could help put more pressure to help get that repeal done. So I think it's part of the process that we need to be part of.

SENATOR ADLER: What would happen to a state like New Jersey if it just ignored the 2 percent requirement and just sold non-oxygenated gasoline?

MR. TITTEL: EPA might come down on us. On the other hand, I'm not really sure. I'm assuming EPA would come forward and try to go after New Jersey for doing that.

And by the way, ethanol -- even if you get rid of the oxygenate requirement, ethanol could still be used as an octane booster for the higher-grade gasolines. It's not like I'm saying it has no -- it has absolutely no impact anywhere. But it can be used for, like, premium.

Again, going back to your question, I think that-- I don't know what would happen. And maybe it's something we should consider doing. But you'd have to ask the oil industry if they're willing to take that chance.

SENATOR ADLER: Can I ask one more question?

SENATOR SMITH: Sure.

SENATOR ADLER: Let's assume that we can't get a waiver of the 2 percent requirement. From the Sierra Club's position, what's better, environmentally, for New Jersey for the next generation, MTBE or ethanol, if that's our only choice -- one or the other? Assuming that's our choice, what's better for the environment?

MR. TITTEL: Unfortunately, I think it puts us in a-- It's the old patent line of, if you're caught between the Russians and Germans, fire in both directions. I think it puts us in sort of a Sophie's choice, because we're going to be--

SENATOR ADLER: You're mixing your metaphors. (laughter)

MR. TITTEL: I know. I think it puts us in an untenable position, because we're trading negative air quality benefits for negative water quality impacts.

SENATOR ADLER: So you're answer to me would be?

MR. TITTEL: I have to think if we can't get the waiver, unfortunately, probably keep the MTBE. And the reason is, because you're

trading, again, water quality-- But then what do you say to a kid with asthma, who has high levels of ground ozone in the area because of ethanol, and that kid has an asthma attack. I think it puts us in a really bad position. We're trading one group of people being impacted for another group.

SENATOR SMITH: Senator Sweeney.

SENATOR SWEENEY: You would trade ethanol for MTBE. You would want MTBE if you had no choice.

MR. TITTEL: I think you're, again--

SENATOR SWEENEY: If there were no option, as Senator Adler said -- we had no option. We can't get the waiver--

MR. TITTEL: I think we've got to push for it.

SENATOR SWEENEY: --knowing what it's doing to the water--

MR. TITTEL: And I live on a-- I have a well.

SENATOR SWEENEY: I know. You gave me your address. I thought you were inviting me. (laughter) I thought we'd have a picnic.

MR. TITTEL: You can come up any time. I'll take you on a hike in the Highlands. I'll come down to West Deptford for lunch, and I'll take you up there for a hike.

SENATOR SWEENEY: Well, you know where I'm at. Dave knows. They've knocked on my door.

SENATOR ADLER: A couple times. (laughter)

MR. TITTEL: Unfortunately, I think that, again, I don't like MTBE. I want it banned, but I can't take the position of supporting ethanol. It's a national policy of the Sierra Club.

SENATOR SMITH: Thank you for your testimony.

I lost the slip on the representative of ExxonMobil. Would you come forward, or did you not want to?

UNIDENTIFIED SPEAKER FROM AUDIENCE: Supporting the bill, not making a statement.

SENATOR SMITH: Supporting the bill.

All right, our next witness is George Cruzan, ToxWorks for Lyondell.

**G E O R G E C R U Z A N, Ph.D.**: I have printed copies, if you want.

Thank you, Chairman Smith.

I am George Cruzan. I'm a board certified toxicologist. For the last 10 years, I have owned ToxWorks, which is a toxicology consulting firm located in New Jersey. For 15 years prior to that, I studied the toxicology of petroleum streams and products, including gasoline in the toxicology department of Mobil Oil, located in Princeton, New Jersey. So I have a pretty good understanding of gasoline toxicity and additives, etc.

My company provides consulting to a wide range of companies currently, including some of which are involved in petroleum refining and result in chemical production. One of those clients is Lyondell Chemical, for which I prepared this review.

My comments are related to the health effects of MTBE. Despite the comments from the people from Ringwood -- and I understand their concerns about having MTBE in their well -- there is no association of skin lesions with MTBE. There is no association with the other diseases that were mentioned.

Now, at very high doses in animal experiments, MTBE did cause increased tumors in rats and in mice. Those are exactly the same kinds of tumors and in the same organs as unleaded gasoline without MTBE in it. So if you think MTBE should be banned because it's a carcinogen, and you follow the same logic, you have to ban gasoline, because it causes the exact same things that MTBE does. There is no difference. And, in fact, unleaded gasoline without MTBE is more potent than MTBE in those animal studies.

Further, there are strong experimental evidence for both MTBE and unleaded gasoline -- that the things that -- the biochemical changes that happened in the rats and mice to cause those tumors do not happen in humans. And that's why EPA has not classified either unleaded gasoline or MTBE as a carcinogen.

In fact, although California has banned MTBE, their official board for labeling carcinogens under Prop 65 reviewed all the MTBE data and decided that MTBE should not be classified as a carcinogen in California. The National Toxicology Program, in their report on carcinogens, reviewed it and concluded it is not a carcinogen. The International Agency for Research on Cancer reviewed it and concluded that it is not a carcinogen.

So you can always find something to support a position that you want. And some people have looked at the animal studies and said, "We ought to ban it, because it's a carcinogen."

Secondly, there are components in gasoline that are known carcinogens. Apart from the kidney tumors that are seen in rats, benzene is a component of gasoline. Benzene is classified by every agency as a known carcinogen. If you want to protect people from benzene from gasoline spills,

then you ought to have some sentinel chemical in there that will tell you when you have a gasoline and, therefore, a benzene spill.

I hear comments here today about MTBE leaks, or MTBE spills. There is no such thing as an MTBE spill or an MTBE leak. And you need to be clear about that. There are gasoline spills and gasoline leaks. And when that gasoline contains MTBE, then MTBE gets into the groundwater. As the groundwater moves, it carries MTBE, but it also carries all of those other hydrocarbons from gasoline along with it. It happens that MTBE travels a little bit faster than the rest. So when someone finds MTBE in their well, that's an indication that something more hazardous is following right along behind. If MTBE isn't there, people are going to end up with benzene and other chemicals in their wells, and they're not even going to know it, because there's no sentinel chemical coming ahead of it.

EPA has reviewed all of the data on MTBE, and they have set what they consider safe levels. For exposure of one to 10 days, EPA considers 1,000 micrograms per liter in the drinking water as a safe level. I grant you, no one would ever drink water with 1,000 micrograms per liter in it. But based on the health effects for a short-term exposure, 1,000 micrograms per liter is a safe level over a short term.

For a time period of continuous exposure of about seven years, EPA says 350 micrograms is a safe level. And for lifetime exposure, EPA says that 70 micrograms per liter is a safe level. Now, we all know that odor occurs at -- taste and odor effects occur at a lower level. And so that taste and odor should protect people from health effects from MTBE. So the issue with MTBE is not a health effects issue.

Furthermore, trading for ethanol does not really solve the health effects problem. Because, if anything, ethanol is more toxic and more carcinogenic than MTBE. Ethanol is classified by California as a known human carcinogen; it's classified by the National Toxicology Program as a known human carcinogen; it's classified by IARC, the International Agency for Research on Cancer, as a known carcinogen. There is no doubt that ethanol does, in fact, cause cancer in humans. And it's associated with a large number of different types of cancer, fairly clearly documented.

In fact, in a recent review, the U.S. Centers for Disease Control lists ethanol as the second leading cause of preventable deaths in the U.S. The CDC estimates that ethanol consumption resulted in 85,000 preventable deaths in 2000. No deaths have been associated, by the CDC or any other agency, with MTBE exposure.

So, in conclusion, MTBE has been effective at reducing air pollution. We ought not have exposures to it. And we ought to do things to prevent gasoline tanks from leaking. One of the previous comments was that we have underground tanks and underground tanks will always leak. Well, we ought to solve that problem. We shouldn't have leaking, underground tanks.

SENATOR SMITH: I have to ask a question, and that is, the 85,000 preventable deaths -- you're not talking about trace amounts of ethanol doing this. You're talking about people overdoing their scotch and soda -- cirrhosis of the liver, things like this?

DR. CRUZAN: Yes, largely.

SENATOR SMITH: I don't know that you want to make that comparison.

DR. CRUZAN: Okay.

SENATOR SMITH: I don't know that they're analogous.

DR. CRUZAN: Well, there are-- MTBE is used, medically, to treat gallstones, to dissolve gallstones. There are no reported deaths from that.

SENATOR SMITH: Right, but the scotch and soda -- not that I'm encouraging it -- is a voluntary act. People decide they want to have their cocktail before dinner, or whatever, as opposed to MTBE ingestion, which is not a voluntary act.

DR. CRUZAN: I agree that there's a difference between a voluntary and an involuntary.

SENATOR SMITH: I'm just saying, for future testimony, I wouldn't make that comparison. I don't think that works.

SENATOR McNAMARA: You wouldn't order scotch and water.

(laughter)

SENATOR ADLER: Bob.

SENATOR SMITH: Senator.

SENATOR ADLER: Sir, do you know if the CDC has quantified the number of ethanol related deaths that are not -- as the Chairman described -- somehow alcohol related, but are exposure to ethanol in an involuntary manner?

DR. CRUZAN: No, they have not.

SENATOR ADLER: Do you know of any other study that can quantify that figure for us?

DR. CRUZAN: No, no.

SENATOR ADLER: Do you know if it's more than zero? Is it possible we're talking about zero deaths from MTBE exposure and zero deaths from ethanol as a gasoline additive? Is that possible?

DR. CRUZAN: That's possible.

SENATOR ADLER: Okay, thanks.

SENATOR SMITH: Senator Sweeney.

SENATOR SWEENEY: I'm just curious why you would even give us something like that. Can you explain that to me? To me, personally, that's insulting to throw that number and throw that information out. As you're speaking as an expert witness, to mix the message that it's ethanol--

Senator, I have never ordered an MTBE and soda in my life.

SENATOR SMITH: No cocktail.

Let's not pick on our witnesses either. I mean, we want people to come forward and--

SENATOR SWEENEY: I'm sorry. You're right.

I apologize.

SENATOR SMITH: We appreciate--

DR. CRUZAN: Well, the concern that I have is, people want to say MTBE is terrible, and ethanol is perfectly fine. The issue is, if you want to look at actual, real health effects from the two chemicals that we know about, there are clearly demonstrated health effects from ethanol. There are no clearly demonstrated health effects from MTBE.

SENATOR SMITH: Okay. We appreciate your testimony. Thank you very much.

For the record, Mike -- and I can't read the last name -- from the League of Municipalities--

UNIDENTIFIED SPEAKER FROM AUDIENCE: Mike Cerra.

SENATOR SMITH: Mike Cerra wanted the League's position on record, which is they're in favor of the bill. No testimony is needed.

Our next witness is John Kneiss, from the Clean Transportation Advisory Council, opposed to the bill.

Mr. Kneiss.

**J O H N   K N E I S S:** Thank you, Chairman Smith and Vice Chairman Sweeney. I appreciate this opportunity to come and testify before the Committee.

My name is John Kneiss. I'm the Executive Director of the Clean Transportation Advisory Council, which is dedicated to providing timely and accurate technical information and data to policy makers on clean fuel developments and clean transportation strategies.

I've submitted some written testimony to the Committee. I urge you to carefully look at that. And I'll pull some comments out of it.

We would be in opposition-- We are in opposition to the passage of this bill until -- and believe that -- the full consequences and impacts that will result from a significant modification of gasoline use in the State of New Jersey are fully understood, to avoid potential disruptions to supplies, increases in costs, and degradation to air quality. We think it would be premature to pass this bill without having that knowledge before the State.

As I noted, we're concerned with fuel supply, flexibility in options that can constrict the fuel supply by as much as 10 percent. Using the Energy

Information Administration and other studies that have been done, the impacts to costs that could spike gasoline in the short-term and maintain higher prices in the long-term-- It would likely result in increased vehicles emissions, making it harder for the State to meet air quality standards. It can impact other emissions, such as air toxics emissions that are very important in properties of the fuel. And it could increase State resources -- to enforce it's own State fuels type of program.

I do want to note that you raised the comment about -- Senator Adler -- about what would happen if you just ignored the oxygen standard. There would be issues in transportation conformity in the state, and you would be at risk of losing, literally, hundreds of millions of dollars in Federal State highway -- or highway funding. So you want to be sure that you fully understand that.

Let me point out a couple of things. On the fuel side-- On the pricing side -- we looked at the AAA and the OPIS -- OPIS is the Oil Pricing Information Service -- this past Monday, which is retail pricing averages for various states -- for all the states, actually. And even after accounting for the rise in crude costs, the different state excise taxes that exist, the Federal taxes, and of course using a benchmark in the New York Harbor baseline pricing, New York and Connecticut drivers are currently paying between \$.08 and \$.15 per gallon more than New Jersey consumers. That's after we equalized those other factors. According to the U.S. Department of Transportation, Federal Highway Administration data for New Jersey, with demand of about 12.3 million gallons per day, passing this bill and then having to go and reformulate your fuel to using fuel ethanol would -- if there's a comparable impact to what's

occurred in New York and Connecticut, it would be an increased cost to the state's motorists of as much as \$350 million to a staggering \$674 million each year.

On the air quality side, the current RFG, reformulated gasoline formulation, is reduce summertime mobile source emissions.

SENATOR SMITH: Mr. Kneiss, if we can interrupt you for one second, just because you made a very interesting point. Senator Adler had a question.

MR. KNEISSL: Sure.

SENATOR ADLER: I'm sorry to interrupt your testimony.

Before you get off that topic, can you tell me what the equalized price differential per gallon was -- New Jersey versus Connecticut and New York -- five years ago?

MR. KNEISSL: I did not look at five years ago.

SENATOR ADLER: It would be helpful if you could let us know. I'm curious to know if New Jersey always is \$.08 to \$.15 lower than Connecticut and New York State, or whether there's a direct causal connection between the MTBE ban. If there's a way you can show me the causal connection, that would be helpful to me, I think. Because my sense is, it's always been a lot cheaper in New Jersey than in the surrounding states. And maybe that was true before the MTBE--

MR. KNEISSL: Well, there may be some factors, because there is a fairly substantial in-state refining that may cause some increased competition, certainly.

SENATOR ADLER: If you could maybe get back to me on that, or get back through the Chairman.

MR. KNEISSL: I will do that.

SENATOR SMITH: Right, and I'll share that information.

Senator Sweeney.

SENATOR SWEENEY: Along with what you just stated about in-state refining capabilities, that would attribute to cheaper prices, wouldn't it?

MR. KNEISSL: I think there is probably some increased competition that occurs. However, the sourcing of fuel into New York is multiple, between the imports--

SENATOR SWEENEY: But having so much fuel available in the state-- There's a cost associated with transportation and fuel, correct?

MR. KNEISSL: There is.

SENATOR SWEENEY: So that could attribute to a difference, also.

MR. KNEISSL: That could, yes.

SENATOR SWEENEY: Thank you, sir.

SENATOR SMITH: Senator, did you have a question?

SENATOR McNAMARA: I just, kind of, ask the same question as Senator Adler. And I do believe -- no question in my mind -- that differential exists 10 years ago, and will exist 10 years from now. I don't think it is related at all.

SENATOR SMITH: No problem.

Mr. Kneiss, we've had conflicting testimony on the issue of the cost of gasoline with MTBE in it, versus the cost of gasoline with ethanol in it.

If you remember the first gentleman that testified, who was with an environmental group in New York, made the point that the spot price for MTBE was half that of ethanol, so, therefore, the price would be less. I thought I heard in your testimony that the position of your group is that if ethanol is chosen, the price of gasoline will go up.

MR. KNEISSL: I think what I was trying to point out is that after, again, examining these other factors such as differences in taxes, etc., the rise in crude costs that's occurred was merely a snapshot picture of what's the current situation. They are paying higher prices. I will go back and examine it, historically, to see whether there has been an increase over time.

SENATOR SMITH: Related to ethanol.

MR. KNEISSL: Yes. Let me comment-- I'd like to comment about the fact that, yes, on a spot basis, or from a pure standpoint of pure ethanol that's produced at Midwest facilities, or pure MTBE that's produced at petrochemical facilities and refineries-- We do not burn either of those as pure products in our cars.

SENATOR SMITH: We understand that.

MR. KNEISSL: They're blended into gasoline. When you use fuel ethanol, you're required to reformulate your base gasoline in different ways, make it less volatile and remove various light components out of the fuel to accommodate the ethanol that goes in.

Now, those changes in the fuel -- in the base fuel for a fuel ethanol, obviously, are increased capital costs. You also have storage, transportation, segregation of those products. All of those add to the cost that are ultimately

passed on to the consumer. It's called *fungibility*, and I think you know what that phrase means.

SENATOR SMITH: Anything further, sir?

MR. KNEISS: Yes, I have a couple more points, very quickly, I'd like to--

SENATOR SMITH: Senator Sweeney, you wanted to get one more question--

SENATOR SWEENEY: One quick question: The last gentleman, basically, let us know who he represented. The group that you're representing -- who's funding this group?

MR. KNEISS: This is a new initiative. We do get funding from some publishers, Hard Energy Publishing and some other groups. Last year, before I came in full-time, I know that there were some petrochemical firms: Methanax, Lyondell funded last year, but not this year.

SENATOR SWEENEY: But Lyondell was one of your supporters.

MR. KNEISS: Last year, yes. Before I became involved with this. We're expanding our membership. We're looking at other membership bases. And I'm working, right now, with a--

SENATOR SWEENEY: Are there any other manufacturers of ethanol -- I mean of MTBE, or other corporations that are off-shoots -- that someone that would supply, to the people, that MTBE?

MR. KNEISS: No.

SENATOR SWEENEY: No.

MR. KNEISS: Not right now.

SENATOR SWEENEY: Okay.

MR. KNEISS: Okay.

I do want to point out, the current formulation on reformulate, for RFG in the state-- VOC reductions of 28 percent over baseline conventional fuel; air toxics, 33 percent; nitrous oxides, 9 percent. And that's northern Virginia -- similar in Trenton. Those are substantial benefits for improving air quality.

We've heard about the permeability issue with the state of California studying it. Looking at reformulation of the fuel in this state, with this New Jersey State Implementation Plan, and it's rate of progress for continually reducing emissions to meet the National Air Quality Standards-- A similar permeation effect, if we assume that, could increase emissions by about 11.7 tons per day in the northern New Jersey non-attainment area. So I think the State Department of Environmental Protection has to closely examine what the impacts would be.

We heard about the tank issue. And I'm sure others will talk about that. I'm not going to address that. I'm not an expert on that.

So I think the recommendations I can make about this are that the New Jersey Department of Environmental Protection needs to carefully analyze the emissions impact to ensure that there's no backsliding on the actual achievement that's occurred in the State of New Jersey. I think the Legislature should ensure that there are sufficient resources available to the DEP for the underground gasoline storage tank inspections, and enforcement to ensure that the standards that became finalized in December, 1998 are indeed being followed, and that you do have the standards available to protect groundwater and water resources.

And I think one of the things is a petition to the Federal government for the use of the LUST Funds that currently have about a \$2 billion surplus -- Federal level -- to be able to use those for gasoline cleanups that also include MTBE and all the other constituents.

And I certainly think that the basic position is that you have no bans, no mandates, and allow marketplaces to work at looking at solutions for improving air quality and reducing emissions.

Thank you.

SENATOR SMITH: Thank you, Mr. Kneiss.

Our next witness is Mr. Bliss Baker, who's identified himself as an ethanol producer.

Mr. Baker.

**B L I S S   B A K E R:** Thank you very much, Mr. Chair.

And thank you to the Committee for the opportunity to speak to you today.

It's a full house, so I will keep my remarks fairly brief. If I had a high-priced lobbyist with me today, he or she would probably be advising me to stick to the script. But after hearing some testimony this morning, I don't think I can do that.

I came here today to address a very simple issue. As an ethanol producer, the issue is supply. And I wanted to make a very simple comment and statement that I have been following the ethanol industry and MTBE debate for some time now. And the ethanol industry has repeatedly responded to new demand in the marketplace. And that evidence is irrefutable. Today, with the prices the way they are, we're not necessarily smiling, but we're awash

in ethanol today. And if the MTBE ban were to be implemented in New Jersey, I have no doubt that the ethanol industry would respond as they have in every other jurisdiction. And as a company that makes alcohol -- ethanol in beverage and industrial alcohol, I can tell you that we certainly are interested in the Northeast. And our company, as well as many others, are watching this closely. And the industry will respond with supply. So I suspected that issue may come up today, and that's why we're here today.

But there's another issue-- And if you'll humor me for a minute, I'll stray from my script. An issue that has not been raised today, that I feel very strongly about -- and people in our industry feel very strongly about -- and that's the issue of energy supply -- security of energy in North America. And this issue has not come up yet, but I believe this issue supersedes all other issues. And, as legislators, if you decide that it is in the interest of national security and for energy supply purposes to ban MTBE, then I think it is the right thing to do.

In 1989, when I was doing my post-graduate studies at the London School of Economics under the infamous professor Hans Strauss, he started off his class by predicting that the end of cheap oil was on the way. This was at a time when the oil was at a rock-bottom pricing. And he started off by making what I thought was a statement, back then, that seemed ridiculous at the time -- but he said to all the students that, "We will never run out of oil -- never, in anybody's lifetime. There's lots of oil." And he's right. The issue was, at what price. We will not run out of oil. And he's still right. He predicted the end of cheap oil 16 years ago. And two years ago, the

gentleman who President Bush was holding hands with yesterday predicted -- on the front page of *The Economist* magazine, the end of cheap oil.

SENATOR SMITH: Let me interrupt you for one second.

MR. BAKER: Yes.

SENATOR SMITH: Senator Adler, you had a question.

SENATOR ADLER: Thank you, Chairman.

I'm sorry to interrupt your testimony -- your exciting, off-the-script testimony -- but I want to make sure I understood what you were saying. You believe it's a national security issue that we use MTBE as an additive for gasoline.

MR. BAKER: I am saying whatever encourages the development of alternatives to gasoline is in the national security interest.

SENATOR ADLER: Do you believe if we replace ethanol for MTBE that we're going to reduce our demand for foreign oil and, therefore, free ourselves to have a foreign policy that's less dependent upon friendliness to Arab and OPEC nations that produce oil?

MR. BAKER: Absolutely. We've expanded our refining capacity in this country, and in North America, by two-and-a-half, three billion liters by growing ethanol.

SENATOR ADLER: I don't mean to-- I don't understand the chemistry of it, maybe. Will we be using less gasoline if we add ethanol to gasoline, as opposed to the gas and consumption we currently have with MTBE as our New Jersey additive?

MR. BAKER: By growing renewable fuels, we are--

SENATOR ADLER: No, no, no. Stick with my question.

MR. BAKER: Yes, okay. Go ahead again.

SENATOR ADLER: Will we be using less gasoline in New Jersey if we substitute ethanol for MTBE?

MR. BAKER: We will be using a renewable fuel.

SENATOR ADLER: I understand that. The ethanol portion is renewable.

Will we be using less gasoline, is my question?

MR. BAKER: Yes.

SENATOR ADLER: How? I'm losing the chemistry of this. I don't get that.

SENATOR SMITH: Let me try and make it-- As I understand it, ethanol, by itself, is -- can be used as a fuel. It is an organic chemical that has high energy content that can be combusted. So I think his point is, the more ethanol you put in -- the more ethanol that's available for consumption as a fuel, the less gasoline you're going to need, because you're using more and more ethanol and, theoretically, less and less oil.

I think that's what your point was.

MR. BAKER: Yes.

SENATOR SMITH: It's not a chemistry issue. It's a matter of quantity and volume. He's saying, on a gallon of gasoline, if a third of the gallon was ethanol--

SENATOR ADLER: So not with current engines, but with some newly developed engine, it would just use ethanol.

SENATOR SMITH: No, not even a new engine. He's saying, if you use more ethanol-- In a gallon of gasoline, if a third of the gallon was ethanol, then you have one-third less gasoline.

MR. BAKER: You're displacing a third of the gallon of gasoline.

SENATOR SMITH: Right. That's what I understand your point is.

MR. BAKER: Right.

SENATOR SMITH: I don't know if it's accurate, but that's what I understand your point to be.

MR. BAKER: That's what I'm saying.

SENATOR ADLER: That was my question. I don't understand. But if you're saying it's accurate, I'll accept it until someone proves you wrong.

MR. BAKER: The main point I wanted to make was that the ethanol industry has responded repeatedly to new demand. And I'm not here to take sides on the MTBE ban. If you decide, as legislators, to ban MTBE, there will be, naturally, if you don't get rid of the waiver -- or you don't get an oxygen waiver, there will be a new demand for ethanol. It stands to reason. What I'm saying is, there are people out there saying that the ethanol industry cannot respond and there's not enough ethanol. I'm here to say, as an ethanol producer, that there is plenty of ethanol today. And with 15 plants under construction, and 84 operating plants in the United States, there's plenty of ethanol.

SENATOR SMITH: Would you continue?

MR. BAKER: No, that was my closing remark.

SENATOR SMITH: That's it?

Any other questions for Mr. Baker? (no response)

If not, thank you, Mr. Baker.

And our next witness is Mr. Gary Grinstead, who is ENSR, representing Lyondell Chemical.

Mr. Grinstead, what's an ENSR?

**G A R Y G R I N S T E A D:** ENSR-- We're an environmental consulting company. We have a large office over in Piscataway.

I've never been asked that before.

SENATOR SMITH: Ding, ding, ding, ding, ding. (laughter)

SENATOR SWEENEY: You should have put Piscataway on the slip. You would have been first.

MR. GRINSTEAD: It actually used to stand for something, but I don't know what it stands for anymore. So it's just ENSR.

SENATOR SMITH: Okay.

MR. GRINSTEAD: Okay. That's my introduction. I'm an environmental consultant with ENSR. We have an office in Piscataway. I am here representing Lyondell Chemical.

I am a geologist. I'm an environmental scientist. I have a master's degree in geology. My expertise is in soil and groundwater studies and remediation. I've been working in the leaking, underground storage tank arena for the past 20 years. And I'm here today to discuss some of the physiochemical issues associated with MTBE.

I am representing opposition to this bill. And I think the short story of my opposition is that I think the bill is misdirected. And it was mentioned earlier-- I think the problem that we should be dealing with, and

the problem that needs to be focused on, is leaking underground storage tank systems, not one of the components of gasoline, which MTBE is. MTBE is a single component of gasoline -- or literally hundreds of fairly complex chemicals in a gallon of gasoline, and MTBE is only one of them. And what I've been doing for the last 20 years is, essentially, studying and remediating -- cleaning up -- gasoline spills. So I think anything that focuses on one component of gasoline is a little bit misdirected.

I think the energy, the focus, the money, from state to state, should be spent on developing, enforcing, regulating, following up on underground storage tank regulations. And that's what I'm here to speak about, a little bit.

Our company has actually done a number of regional studies all up and down the East Coast on the MTBE issue, relating them to MTBE regulation -- or to underground storage tank regulations and enforcement. And what our study showed us is that -- this is kind of intuitive -- but what our study shows us is that the states with the most rigorous underground storage tank regulations -- the best-funded underground storage tank regulations -- are the states where all leaking underground storage tank issues are found to be the leaks. So there's a direct relationship there between what the underground storage tank regulations look like, how they're being enforced, how they're being funded. There are less MTBE issues and petroleum spill issues in states with sound underground storage tank regulations.

The U.S. EPA, a number of years ago, put together what they called the Blue Ribbon Panel to study leaking underground storage tanks and the MTBE issue. They did not come back with a recommendation to ban

MTBE. They came back with a series of recommendations on how to improve the design, the management, the monitoring, and remediation of leaking underground storage tanks, in general. And I think that that's the point that I'm trying to make in my presentation this afternoon.

Some of the recommendations include added enforcement and compliance resources, evaluating the UST system designs, developing sensitive areas of wellhead protection zones, and then using this information for the siting of underground storage tanks and pipelines.

A gentleman said earlier that they had taken issue to the location of the service station in Ringwood. That's specifically what I'm talking about here. If there had been a little more forethought at that point that we're going to put a potential source of groundwater contamination up-gradient from the people in Ringwood -- and there was some regulation zoning thought put into that -- then we wouldn't be discussing Ringwood as an MTBE issue today.

Another recommendation that they made -- and a lot of states -- and state underground storage tank programs are doing now -- are simply to prioritize known releases. And if you identify a leaking underground storage tank that is close to a drinking water source like Ringwood -- put that at the top of the priority list for the State; direct moneys, energy, funding towards those sites that end up on the priority list for the State.

New Jersey has a sound underground storage tank program. Over the last couple of years, they have done a number of things to enhance the regulations. My recommendation would simply be to take a look at the regulations and make sure that they're being enforced. If the regulations are

enforced, or even improved, a lot of the problems that we're talking about will go away.

In that regard, the state of Maryland has recently promulgated a new set of underground storage tank regulations. And it was prompted, primarily, by a number of MTBE releases in Maryland. And what they have done is, essentially, follow many of the Blue Ribbon Panel's recommendations, relative to identifying sensitive wellhead protection areas, improving tank integrity testing methodologies, improving tank leak detection requirements, putting groundwater monitoring wells in at facilities that are located near drinking water sources. That's law now.

SENATOR SMITH: Do you think those regulations are superior to New Jersey's?

MR. GRINSTEAD: Yes.

SENATOR SMITH: Can you get us a copy?

MR. GRINSTEAD: Sure.

SENATOR SMITH: Good.

MR. GRINSTEAD: Superior in that they are more rigorous, definitely. They are more rigorous, they're more demanding.

There's a couple of other just technical issues that I'll hit on real quickly regarding MTBE and some of the -- what I'll call *misperceptions* or *misunderstandings* about the chemical itself. And one was touched on earlier. It's about the mobility of the material. There seems to be a general understanding that MTBE moves much faster, much further than anything else. It is highly soluble, so it does dissolve easily into the groundwater. It was

designed that way. It was designed to dissolve in gasoline. So it has those characteristics.

However, my experience is that if you find MTBE, you find other gasoline constituents either nearby or close behind. I'm not used to finding contaminated sites with only MTBE and not having other things like benzene, toluene, xylene, etc., there.

I think another large misconception is that MTBE is intractable. You cannot treat it; there are no treatment technologies. That, in fact, is not the case. MTBE is a part of gasoline. The same conventional standard technologies that are used for treating the other components of gasoline are used to treat MTBE. I can list them for you, but-- It's a different chemical, but it's not unto itself. So the technologies that are applied are applied across the board.

In summary--

Well, I want to touch on the Ringwood issue a little bit. It's been talked about a lot. I guess the point I want to make is that the MTBE did not cause the tank to leak. The tank was going to leak anyway. MTBE is simply a component of the material that leaked from the gasoline. Somebody actually said the MTBE release -- and I guess it's been repeated twice, I won't say it again -- but it was a gasoline release. And MTBE is a component of gasoline. And whether MTBE was there or not, that tank was going to leak, and there's going to be some other chemical in those peoples' wells because of where that tank is and the hydrogeology of that area. It's unfortunate. Nobody wants these things to happen. But the tank was going to leak -- or the tank did leak.

In summary, I think that the problems of MTBE in New Jersey can be best addressed by either enforcement, upgrade, or more serious management of the underground storage tank issues.

Thank you.

SENATOR SMITH: Great.

We have two Senators with questions.

Senator McNamara.

SENATOR McNAMARA: You referred to the -- that the MTBE-- And I think all of us clearly understand it's one of the components, and that is part of it. But it's been my understanding that it travels, because of the fact that it blends so well, that it does travel faster than gasoline without it. Is that true or not true?

MR. GRINSTEAD: It, as a pure chemical, would likely travel a little bit faster than the other pure chemicals in a gasoline. It is typically out on the leading edge of the plume. That is correct.

SENATOR McNAMARA: And, secondly, you say there's methods to clean it up. But from what we've been told over the years, it is more difficult to remove the MTBE component than it is some of the other additives in gasoline. Is that true or not true?

MR. GRINSTEAD: More difficult, yes. Is it--

SENATOR McNAMARA: Okay. Does the more difficult translate into more expensive?

MR. GRINSTEAD: Slightly, but it's a marginal number that we're talking about. I mean, it does not say-- I'll give you an example. It does not

filter as well as some of the other constituents. You change the type of filter that you use. The technology is still the same.

SENATOR McNAMARA: Could you send, through the Chair, information related to that, because I would really like to review it.

MR. GRINSTEAD: Absolutely.

SENATOR SMITH: Charcoal filtration for MTBE?

MR. GRINSTEAD: Yes, right.

But you have to have the right size charcoal. That's all it is.

SENATOR SMITH: Okay, understood.

Senator Sweeney.

SENATOR SWEENEY: Just a quick comment. I'm not offended by who's representing who. It's just that sometimes, when you see groups come up and they have these real catchphrase names, you don't know who's funding them.

MR. GRINSTEAD: Right. Well, we're--

SENATOR SWEENEY: So it was no issue at all -- just so you--

And the other thing is, I agree with you. We need, along with a ban on MTBE, we need to address underground storage tanks.

And, through the Chair, I would love to see the Maryland legislation and some of the other states that have done a better job of regulating and monitoring underground storage tanks. It's not just one.

SENATOR SMITH: Well, we're going to check that statistic out, too.

SENATOR SWEENEY: So, again, I just want to let him know that--

SENATOR McNAMARA: But you can't take any of the underground storage tank money that I've been protecting right along. So I'm glad to hear that testimony.

SENATOR SWEENEY: Gotcha. Thank you.

SENATOR SMITH: Thank you, sir.

MR. GRINSTEAD: Thank you.

SENATOR SMITH: Kathy McGinnis, representing the McGinnis family.

Ms. McGinnis.

**K A T H Y M c G I N N I S:** Hi.

I'm Kathy McGinnis. I live in Ringwood.

Senator Sweeney, I wrote this out for you. It's M-T-B-E.

SENATOR SWEENEY: MTBE, yes. You've just got to hold it up enough.

SENATOR SMITH: Now, if you can say the chemical name you'll really win the prize.

MS. McGINNIS: It's methyl t-butyl ether.

SENATOR SMITH: Methyl *tert*-butyl.

MS. McGINNIS: T is for *tert*, yes.

SENATOR SMITH: Yes.

SENATOR SWEENEY: Wow.

SENATOR SMITH: Now, if you can do the chemical symbols, we'll really be impressed.

MS. McGINNIS: Do you want me to do that? Do I get a prize?

(laughter)

SENATOR SWEENEY: You absolutely get the prize for that.

UNIDENTIFIED SPEAKER FROM AUDIENCE: Will you drop the ban if I write it?

MS. McGINNIS: Actually, if you want to see, I do have that with me.

SENATOR SMITH: No, it's all right.

MS. McGINNIS: Okay.

I'm going to be brief here. I'm not a public speaker by any means.

The original intentions of the Clean Air Act are commendable, but the actual consequences of this legislation have proven to be catastrophic. This is particularly evident in New Jersey's watershed communities and towns whose residents rely heavily on well water. The impact of oxygenated fuel on the ground and surface water has been researched, ignored, and politicized. With all the knowledge we have today on the consequences of mandatory fuel additives, it is irresponsible to consider -- to continue their storage and distribution in New Jersey, especially in core preservation areas of the state.

Did you want a brief overview of the chemistry? Because ethanol, by itself, does not have enough carbon atoms to -- I mean, even though it's a combustive fuel -- to continue combustion, which is why they add it to the gasoline, which has eight carbon atoms.

MTBE has been the oxygenate of choice for the petrol industry because of its relatively low revapor pressure. So it will not evaporate as readily as ethanol. It is relatively inexpensive and can be transported through existing pipelines. And while some studies acknowledge the claim that it's effective in reducing CO and VOC emissions -- especially in older vehicles --

a number of industry measurements also show an increase in NOx and formaldehyde emissions.

MTBE is highly soluble in water; will transfer to groundwater faster and move farther, in a plume-like fashion, than any other constituents of gasoline. The White House National Science and Technology Council reported that, and I quote, "There is sufficient evidence that MTBE is an animal carcinogen, and that the weight of evidence supports -- regarding MTBE as having a carcinogenic, hazard potential for humans." Now, what you heard before from the toxicologist was--

I was insulted by that, too, but there was other data that he gave you that I believe was skewed, when he said that animals that were exposed to MTBE had the same -- it had the same tumor eugenic effects as gasoline. Well, we have people in Ringwood who are drinking MTBE, they're not drinking the gasoline. The MTBE is what's mixing with the water. So that-- When you heard that, that was a little bit skewed also.

SENATOR SMITH: Ms. McGinnis, your testimony seems to be very anti-MTBE, but yet you say you're opposed to the bill. Why are you opposed to the bill?

MS. McGINNIS: I am, because I don't want to see ethanol as an oxygenate either. That has problems of its own. And I'm like Jeff Tittel. If you said to me, "Would you rather have MTBE or would you rather have ethanol," one is just as bad as the other.

SENATOR SMITH: Just by way of information, as I understand Senator Sweeney's bill, he doesn't mandate the use of ethanol. He just has the ban of MTBE.

Correct, Senator?

MS. McGINNIS: I would just like to see it go a little bit farther and ban oxygenates as a whole, because ethanol degrades the--

SENATOR SMITH: I don't know if you heard the earlier comment. The problem with that is that we're mandated by the Federal government to have the 2 percent oxygenate. And unless you get a waiver from it -- and they haven't granted any waivers yet -- you lose your hundreds of millions of transportation dollars. That's the problem.

MS. McGINNIS: Okay. So can we apply for a waiver for oxygenates as a-- I think we really have to have some courage, and step forward, and do this as a State.

SENATOR SMITH: We've heard that from other witnesses, as well. So it's under consideration.

MS. McGINNIS: Okay, I guess that's it. I guess you've heard everything before.

Thank you for your time.

SENATOR SMITH: Thank you for your help.

MS. McGINNIS: Okay.

SENATOR SMITH: Mr. Bozarth, Chemical Industry Council.

(sic)

**H A L   B O Z A R T H:** I am Hal Bozarth, and I represent the business of chemistry, if you will, in New Jersey.

And a spade of full disclosure, Lyondell is a member.

No, my wife would say they don't pay enough, so you could discard that part of it.

SENATOR SWEENEY: Are they cheap? (laughter)

MR. BOZARTH: I wouldn't use that term.

But I'm glad to be here. I've watched this issue for at least five or six years and remember the last large debate on it. I know it's an emotional issue for the people in your district and for the people, obviously, in Senator McNamara's district.

I want to take a second and thank you, Senator Sweeney, for being as open -- and you and your office -- as you have been with those of us on the difficult side of the issue, and presenting our facts to you and letting you weigh those, and we really do appreciate it.

I have two concerns that I want to talk to you today-- But, first, I think, as I'm sitting here listening, I'm impressed with a couple of things. And that is the inconclusiveness, I guess, of all the experts that you heard -- whether it's DEP or EPA, the ENSR gentleman, or some of the others. And I think that should give us pause, because of the two points that I wanted to bring out.

And I should say that I'm also pleased to have Jeff Tittel finally see the light on an issue that I'm interested in. And it's good to see that he can learn a little bit. (laughter)

SENATOR SMITH: I understand Mr. Pringle is going to be with you, as well.

MR. BOZARTH: That may be too much, but it's okay. (laughter)

The problem here seems to be, from a manufacturer's point of view in New Jersey, that with an EPA mandate for reformulated gasoline -- which my friend Jim Benton can talk more eloquently about -- there's an

impact to those people who do provide manufacturing jobs. If we fail to meet the State implementation plan because we're now missing the opportunity to have an oxygenate that the EPA will accept, not only will the potential millions of dollars in transportation funds be lost, but also a concomitant downswing on the regulatory controls for stationary sources. And so my members and clients in New Jersey, who have that as a specific situation, will see their regulations tightened even further, making them less competitive. MTBE--

SENATOR SMITH: Does that same reasoning apply to diesel particulates?

MR. BOZARTH: It probably does, yes.

MTBE has been, in effect, a boon to the environmental quality of New Jersey. It has done good things. It's replaced a portion of benzene that's also found in gasoline. And to that extent, I think that's good. It is a Hobson's choice whether you say cleaner air or protection of water. It's a very difficult choice.

But I think, as I'm listening to the testimony today, it seems that the real culprit here are the leaking underground storage tanks. And while I understand it's so easy to identify a substance like MTBE as being the real bad actor in all of this, it's somewhat off the main point of protecting people's water. And I think you've all heard that.

The other point I'd like to make -- and I don't want to diminish the first one by putting it first, because if the EPA fails to give a waiver -- which I don't think it wants to do anytime soon -- that means that New Jersey's manufacturers, as I said, would be at risk.

The second thing is, I would ask the Committee to consider some way to make sure that, as we go forward, the risk of litigation from aggrieved parties, who are emotionally upset about their situation, is not allowed to impact those people who are not at fault for the problem. And I think that if the State of New Jersey is saying to be in compliance we need an oxygenate, and MTBE is the chosen one, then those people who have been involved in the processing, the refining, and frankly the manufacturing of that material should not be held as the causal point for the problems that occur in Senator Sweeney's district and in Ringwood, as difficult as they are. There needs to be some protection. If the government is going to say, on one hand, you should do *X*, on the other hand, the government should protect those people who are doing those things.

Those are my two points. It's a very difficult issue. And I commend the Chairman for having these kinds of interactive sessions, because you all get a chance to hear from the experts to try to make a decision in a highly emotional deal.

Consider, please, the impact on stationary sources, and consider the potential litigation that would accrue should this material, MTBE specifically, be banned.

Thank you, Mr. Chairman.

SENATOR SMITH: Thank you, Mr. Bozarth.

We have a tandem team of Robert Cowan and David Specca, from the Rutgers EcoComplex, in Bordentown, New Jersey, speaking in favor of the bill.

**D A V I D   S P E C C A:** Thank you, Senators. Thank you for your patience, too, in listening to all this testimony.

I'm here today with Dr. Bob Cowan.

Being the Acting Director of the Rutgers EcoComplex, the environmental experiment station for Cook College, Rutgers University, our center focuses on applied technologies and practical solutions to complex environmental problems. Some of our focused work is in the area of water, and air, and solid waste management. It also includes renewable transportation fuels.

The Farm Bureau and Garden State Ethanol had asked if we could, perhaps, find someone up at Rutgers University who was working on MTBE to, perhaps, shed a little bit of light on what happens with MTBE when it does enter the groundwater. And, fortunately for all us, I think there's a quite extensive amount of work being done on MTBE at the University.

And, today, we're fortunate enough to have Dr. Bob Cowan, who has worked at Rutgers University and has since gone on to a private consulting business. And I'd like to let him speak from here out.

**R O B E R T   M.   C O W A N,   Ph.D.:** Hello, Senators.

Can you hear me fine? (affirmative responses)

My name is Robert Cowan. I am an environmental consultant. I do not have any clients at this time who have any vested interest in this discussion. I hold a bachelor's and a master's degree in chemical engineering, and a doctorate in environmental engineering. I was on the faculty at Clemson University for three years, and then at Rutgers for six years.

While I was on the faculty at Rutgers, I did research on MTBE biodegradation. This research was initiated in 1995-96. At that time, in general, MTBE was considered not biodegradable. My work was associated with disproving that fact. Funding that supported this work was supplied by the New Jersey Department of Environmental Protection. And I had funding from the American Petroleum Institute.

I state-- The card that I handed in stated my support for the bill. But this relates to my opinion that you're better off using ethanol, as I'll explain, than with MTBE use, basically because of biodegradability concerns.

The arguments that others have made with respect to waivers -- trying to get a waiver of the 2 percent oxygen requirement and/or better management of underground storage tanks sound -- in my opinion, sound -- if this direction of this legislation were to -- if this legislation were to move in that type of direction, I would support that.

So I will be back to what I prepared before I came here.

Through my work we found that, yes, MTBE is biodegradable. The difficulty, with respect to this-- And the concern is that it's biodegradation is quite slow. I have five handouts that I gave you. Three are related to aerobic biodegradation of MTBE. To simplify the results, it's approximately 50 times slower -- the MTBE biodegradation is approximately 50 times slower than that for other gasoline contaminants that are typically of concern, such as benzene, toluene, ethyl benzene, and xylene. This means that in the environment, MTBE will stay around longer in a zone of biodegradation, therefore having a greater opportunity to transport further.

The condition, under anaerobic situation, where there is a lack of oxygen present in the groundwater -- which is a common occurrence at higher levels of contamination by organic compounds, because the oxygen is used up, and other electronic scepters are required -- in other words, anaerobic conditions. Under these conditions, MTBE is not mineralized. It leaves degradation products. The one that you'd be most familiar with, and is of most concern here, is tertiary butyl alcohol. The issue with tertiary butyl alcohol is it is also very slowly biodegradable. It is also very soluble. So it has concerns with respect to duration of being maintained in the environment and transport lengths, similar to MTBE. Tertiary butyl alcohol is also more difficult to remove than MTBE, using physical and chemical methods.

Under anaerobic conditions -- handouts four and five address these. Dr. Max Häggblom, at Rutgers, who could not be here today, was the lead on that work. I'm a co-author on one of those papers. To simplify, the biodegradability of MTBE -- it would be approximately 100 times slower than the other contaminants, in general, under anaerobic conditions.

This difficulty in biodegradation of MTBE is directly related to its molecular structure. It being a tertiary carbon compound, microorganisms have difficulty attacking this bond.

SENATOR SMITH: What's the half-life in the environment?

DR. COWAN: For?

SENATOR SMITH: MTBE, under aerobic or anaerobic conditions?

DR. COWAN: I don't have a number on the top of my head. I'm sorry.

SENATOR SMITH: Any ballpark? Is it 10 years, five years, a year?

DR. COWAN: On the order of a year, if I'm remembering correctly.

One of the points I'm trying to make with respect to the structure of fuel oxygenates is, there are other (indiscernible) potential alternatives in the past that I've seen. ETBE and TAME -- that would be ethyl tertiary butyl ether and tertiary amyl methyl ether -- these have the same basis of their molecular structure. They're tertiary carbon compounds. I did biodegradation experiments on these. They, essentially, degrade in the same manner -- slowly, as MTBE, also leaving tertiary alcohols as potential intermediates. These would make them poor choices as potential alternatives. So, if you were to ban MTBE, it would make sense to include those in the ban.

There was some testimony with respect to the removal technologies for MTBE. I agree that, yes, the same types of removal technologies can be used for MTBE as for other gasoline components. The issue becomes, with respect to the size and expense in running those. While, technically, MTBE removal may not be excessively more expensive, the fact that you'll typically find tertiary butyl alcohol complicates that considerably. For example, work done on air stripping-- MTBE can be air-stripped. The order of difficulty in removing it may be two times, whereas, then, tertiary butyl alcohol -- an additional 10 times more difficult.

I'm just trying to catch my place.

This also fits with carbon absorption. Tertiary butyl alcohol is much more difficult to remove using carbon absorption than MTBE. So while

MTBE is biodegradable and biodegradation and physical chemical technologies do exist for its removal -- both in situ and ex situ -- these tend to be more difficult and expensive than for removal of your standard contaminant -- BTEX.

You need to consider these issues when you're making your decision with respect to banning MTBE.

So I thank you for your time.

**SENATOR SMITH:** Thank you for your testimony. It's most appreciated.

Mr. Jim Benton, from the New Jersey Petroleum Council. Neither box is checked, opposed or in favor.

**JIM BENTON:** Chairman and Senator Sweeney, good afternoon.

My name is Jim Benton. I'm the Executive Director of the New Jersey Petroleum Council. Beside me is my colleague, John Maxwell.

Thanks for the opportunity to present our views on the legislation before you today.

Obviously, you've recognized the significance of this issue to the industry and its consumers here in the state. We appreciate the courtesies that you've shown us and the dialogue on this legislation. We've been engaged with this issue for some time, because of its importance to the state.

New Jersey, really, is clearly one of the most strategic centers for the petroleum industry in the nation, particularly the Northeast. We're home to the New York Mercantile Exchange, where the wet barrels back up the trading exercises that go on over in New York. We're reserve to a home heating oil reserve. We're the critical distribution point for gasoline. And

we're recognized by the Federal government as part of our nation's critical infrastructure.

I brought along the chart, because I think it helps place into perspective the dialogue that we'd like to participate in. And that is that presently, under Federal law, New Jersey is required to have Federal reformulated gasoline. And included in that specification is a congressional mandate for the use of an oxygenate. And the legislation before you today, as you've heard -- we've been talking -- would eliminate the choice of the most commonly used oxygenate -- that's MTBE -- by January 1, 2008.

The common thread that weaves through all of the -- a vast majority of the speakers before you today, is that the best answer to this policy question would be to have Federal action to avoid a patchwork of different fuel specifications throughout the state. And that resolution is contained in the Federal energy bill. That's, clearly, our approach.

The same approach in addressing this issue was shared through the dialogue that we've had with other interests, such as the Department of Environmental Protection and the New Jersey Farm Bureau. It's the optimal solution, eliminating the oxygenate mandate, phasing down MTBE. It's highly desirable, and it's contained in the version of the energy legislation that has been recently passed by the House of Representatives.

I know there's been conversation relative to the oxygenate waiver request. Clearly, the Federal energy bill, in its consideration, would be another element to this matrix.

This issue is a big issue. New Jersey ranks sixth in the nation in petroleum refining capacity. We're ninth in petroleum energy consumption

in the nation. To establish a sense of the proportion of the undertaking, MTBE comprises roughly 11 percent, by volume, of the approximately four billion gallons of gasoline sold here in New Jersey. To replace the volume will be a significant challenge and requires adequate time and planning. That planning involves production, it involves transportation, all of which ensures a smooth transition for our customers.

The effort to eliminate MTBE will match the combined volume and the undertaking of New York and Connecticut when those states moved to ban MTBE. I restate that again, because I think it's significant. When you look at the map, you take the volumes that go into Connecticut and the volumes that are required to go into New York and combine them, it matches the volume for New Jersey. It's clearly on the same scope as doing both states.

Significantly, both states permitted adequate lead time to the industry. That's consistent with the Federal Environmental Protection Agency Blue Ribbon Panel recommendations for four-year lead time for fuel changes to the states. That helped ensure that New York and Connecticut had a smooth transition as they banned MTBE and moved to ethanol.

I would also wish to underscore: Should this Committee conclude that action is necessary, the most appropriate start date is January 1 of the year the measure goes into effect. It's currently in the bill. It should be supported.

It's also important to examine where other states currently stand in their consideration regarding this initiative.

SENATOR SMITH: Can you stop for a second?

MR. BENTON: Certainly.

SENATOR SMITH: Your point about the start date should be January 1--

MR. BENTON: That's correct.

SENATOR SMITH: --2006.

MR. BENTON: The start date would be January 1. Our policy is for a four-year lead time, Senator.

SENATOR SMITH: So it would be January 1, four years from the date of enactment.

MR. BENTON: Four years from the day of enactment.

SENATOR SMITH: Is that currently in the bill?

MR. BENTON: Currently in the bill, it's January 1, which should be supported. But it's 2008 that's in the present bill.

SENATOR SMITH: And why, again, do you need four years to do this?

MR. BENTON: Well, we believe we need four years to do so because of the challenges that are brought to the industry in bringing ethanol to the marketplace here in New Jersey, making certain that all marketers have the ample opportunity to work through the challenges -- whether it's transportation, whether it is production, whether it's the storage, fire safety, just different transitions that go on, with regard to the substitution of MTBE with ethanol.

SENATOR SMITH: Okay, thank you.

MR. BENTON: That's our policy.

SENATOR SMITH: I'm sorry to interrupt.

MR. BENTON: Now, you're going to easily hear certain marketers within our industry can do it quicker, but this is the consensus policy statement, just so you're not mislead. I want to be as clear as I can on that.

The other thing we support and recognize in the legislation that Senator Sweeney has sponsored is the de minimis level of MTBE by .5 percent by volume. That should be supported. In other words, there could be trace amounts in there. Senator Sweeney has that in the bill.

We also wish to highlight, which is not in the bill, the need for consideration that -- should the Committee move on this -- New Jersey is a distribution point for other states. As a result, what we'd like see is a trans -- what's called *trans-shipment* -- that is, you can manufacture gasoline containing MTBE that can be shipped for sale in other states. It's a critical component. It's recognized in the New York and Connecticut legislation, also.

SENATOR SMITH: And that's not currently in our bill?

MR. BENTON: That is not currently in your bill.

SENATOR SMITH: All right. Would you mind forwarding language to Senator Sweeney on that? Because I'm sure he'd like to consider anything that's constructive in nature.

MR. BENTON: Certainly. You look at nearby Pennsylvania for example. Pennsylvania also requires reformulated gasoline. And while, clearly, we would prefer regional -- we would prefer Federal and then regional solutions, you'd also recognize that that distribution could come through New Jersey.

SENATOR SMITH: Okay.

MR. BENTON: Absent the adoption of a Federal energy legislation -- this goes to a comment that was made by Senator Adler before -- New Jersey should seek a Federal waiver from the oxygenate requirement. A favorable decision from EPA to waive that requirement might provide a path for states like New York, or like New Jersey, to consider. New York and California has already petitioned the EPA in that matter. I would candidly agree that it does seem to be a longer shot. Enactment of the Federal energy legislation seems to be closer at hand and provides more immediate certainty.

Let me also briefly discuss ethanol. Most casual observers would suggest that the petroleum industry is opposed to ethanol. And we believe that ethanol has a bright future in assisting us in meeting our energy needs. The Petroleum Council has met with our friends at the New Jersey Farm Bureau to discuss their interest, at the very earliest considerations regarding production plans that they had in New Jersey.

It's true, we are customers of ethanol both here and the Midwest, and where it is readily available. And we plan to be customers of ethanol in the future.

However, ethanol does have distinct environmental, transportation, and air quality challenges, some of which you have heard today. The petroleum industry will work to enhance and ensure a safe, environmentally appropriate secure use of this oxygenate as we move to meet our energy needs.

We wish to thank the Committee, and particularly the sponsor, and you, Mr. Chairman, for moving deliberately and carefully on this measure.

It's a big deal. And we'd be happy to work with you in answering any questions you might have as you begin addressing this issue.

Thank you for your time.

SENATOR SMITH: That four-year period before the law would take effect, would there be a phase-in during the four years, or is it that it immediately takes effect at the end of the four years?

MR. BENTON: It would immediately take effect in the four years -- at the end of the four years.

SENATOR SMITH: Would there be the option, however, to start replacing MTBE with ethanol during the four years, or not?

MR. BENTON: Certainly, if a marketer chose to do so.

SENATOR SMITH: Right, it would be market forces.

Senator Sweeney, any questions? (no response)

Thank you, Mr. Benton and Mr. Maxwell.

**J O H N M A X W E L L:** Could I-- I'd like--

SENATOR SMITH: Oh, sure. Go ahead.

MR. MAXWELL: I just want to add something here.

I don't know. Do I push that one? (referring to PA microphone)  
I guess that one. Whatever.

In response to an earlier question, I believe by Senator Adler and, I think, by you, Senator Sweeney-- In terms of UST enforcement, the DEP has assembled an enforcement team. They're in the process of building 18 positions, 18 dedicated inspectors to work with the County Environmental Health Act people, to go around and make sure that the underground storage tanks at our retail service stations are in compliance with the UST regs. So

they're very aggressive about this. They put out a compliance advisory. And we are very supportive of that, because we want to see those regulations followed to the letter of the requirements.

I just wanted to add that in.

SENATOR SMITH: Thank you.

Mr. Pringle, New Jersey Environmental Federation, opposed to the bill.

**DAVID PRINGLE:** Thank you, Mr. Chairman.

We do oppose the bill in its current form for similar reasons to the Sierra Club. We think it diagnoses a very legitimate problem but proposes the wrong solution.

And while the bill clearly, simply bans MTBE, we all know that the practical impact of banning MTBE, if isn't otherwise specified, will be the increase of ethanol use in New Jersey. And that's problematic for a variety of reasons.

Before I get into my prepared testimony, I just wanted to address a couple of points from the testimony I've heard today. First, in no way, shape, or form are we apologists for the MTBE industry. I think language they're seeking at the Federal level, in terms of getting liability relief for their past act -- information they had that they didn't act on -- is inexcusable. So in opposing this bill, in no way, shape, or form are we apologists for MTBE and do we want to see MTBE, moving forward.

Second, I want to just -- earlier testifier on national security. If we replace MTBE with ethanol, we'll actually be using more -- we'll be more reliant on gasoline than we otherwise would be, because the oxygen levels in

ethanol are twice -- there's double -- twice the density of oxygen in ethanol as in MTBE. So if you were using 11 percent by volume for MTBE in gasoline, you actually only need 5 percent -- or 5.5 percent per volume of ethanol. That means you're going to be going from 89 percent gasoline to 94.5 percent gasoline. So we'll actually be needing more gasoline if we replace it with ethanol than if we don't -- in reformulated fuels. That's part of the -- I'll leave it at that.

You seem -- questioning.

SENATOR SMITH: Well, my understanding is that you're not limited to 5 percent. In other words, if they wanted to add more than 5 percent ethanol to the gasoline mix, that that's permissive.

MR. PRINGLE: That's true. If they went up to 11 percent, then that point wouldn't be the case.

SENATOR SMITH: Right, you're saying to--

MR. PRINGLE: My understanding is that they wouldn't -- that that would have other impacts, in terms of energy content and all. So you wouldn't want to go to 11 percent ethanol.

SENATOR SMITH: I don't know the answer to that. But I sure appreciate somebody who has expertise on that addressing it. Good point.

MR. PRINGLE: I'm not that person.

SENATOR SMITH: Good point.

MR. PRINGLE: And I'll take a couple of other questions that -- directly at hand that were asked of other folks. All of our funding comes from - Three-quarters of our funding comes from individual citizens, as Senator Sweeney knows, originally contacted at the door; and a small portion of our

contributions come from foundations that do work in New Jersey, like Fund for New Jersey and the Schumann Fund. So we're not getting any money from the MTBE industry. In fact, at one point we did get money from the ethanol industry, indirectly, to work on banning MTBE. When we realized we did, we gave it back. We don't like to take money that is, in any way, shape, or form, tainted.

SENATOR SWEENEY: I think I helped your fundraising.  
(laughter)

MR. PRINGLE: And in terms of ethanol versus MTBE, we do think it's a false question. There are other options. But if, put a gun to my head, I think one of the things we have going on here, there are-- Ethanol creates air quality problems that MTBE doesn't. And the air quality problems they present are very well-documented, in terms of the health impacts and the causal links between ozone, and NOx, and volatile organics, and the health impacts of respiratory disease. They're very well-documented. It's to the point of an epidemic, as this Committee knows. And the great work and struggle that's been going on, first in clean car and then the diesel legislation--

Whether there are-- What health effects there are, and at what levels, is certainly, at the very least, unknown and a big question mark when it comes to MTBE. So we have a well-documented health problem when it comes to ethanol. And we have a big question mark when it comes to MTBE. Until we have a better understanding of what MTBE is all about, it would be unwise for us to be saying-- We know what ethanol is, it's a problem. It would be unwise to substitute MTBE for ethanol, given the information we have at hand.

So with all that, our position -- and I know that at times this has been raised. This isn't personal. It isn't who's sponsoring what bill. We've supported-- We support legislation on its merits, like mercury searches and chemical security, when it's there. And we don't when it's not. And, unfortunately, in this instance, in its current form, it's not. If you included language that the League of Municipalities has in their resolution, saying ban MTBE but don't replace it with ethanol, well we'd be more than happy to not only support that legislation, but knock on doors in favor of that legislation.

That's why I was a little surprised to hear that the League left a statement of support for the legislation, because this legislation isn't consistent with their resolution. So I would ask the Committee to get a clarification from the League of Municipalities as to exactly what their position is.

I'm trying to minimize the duplication of testimony. A couple of points to expand on our position--

SENATOR SWEENEY: Can I ask one question.

SENATOR SMITH: Yes.

SENATOR SWEENEY: If you wouldn't mind, just-- The 19 states that have already banned MTBE -- are they experiencing air quality issues because of the ban?

MR. PRINGLE: I can-- I at least know of one -- more than anecdote, but not a scientific survey to answer that question -- it is yes. California has had a problem with volatile organics as a result of--

SENATOR SWEENEY: California has a lot of problems. You can't use California. (laughter)

MR. PRINGLE: California has had an increased problem as a result of it.

SENATOR SWEENEY: But the other-- And I truly respect your knowledge and how much you research issues. The other 18 states -- or 17 states-- It's 18 or 19, whatever. Are they -- because I know you do your research -- are they experiencing--

California is a different animal altogether with all the problems they have. There's numerous problems. But the other states, are they having problems that are documented?

MR. PRINGLE: I don't have any information about the other states. I can tell you, though, that there is no more reputable organization, when it comes to air quality, than the California Air Resources Board. And, yes, they have lots of problems, but they are the expert on these issues. And when California banned MTBE and they replaced it with ethanol, they have found -- they have had increased difficulty, as a result of that ban, in complying and getting into attainment when it comes to volatile organics, and ozone, and the like. And part of the reason is, ethanol degrades the rubber and plastic components in cars. And that's one of the reasons you see -- erodes those components. That's one of the reasons you see increased evaporative emissions as a result.

SENATOR SWEENEY: And I'm not going to get into a debate. It's an honest question.

MR. PRINGLE: Right.

SENATOR SWEENEY: Because I hate asking questions I don't already have the answer to. (laughter)

MR. PRINGLE: That's why neither you or I are lawyers.

SENATOR SWEENEY: Yes.

But in New York or Connecticut, which are our neighbors, are they having problems?

MR. PRINGLE: Again, I don't have information on the other 18 states. The only study--

SENATOR SWEENEY: But I mean, I know you can get that-- But do you know what I'm saying? Physically, our location and everything else -- with the same conditions and the same problems with the pollution coming from the Midwest to the East. Knowing all the problems we experience, I would be curious -- and maybe we can get that answer somehow -- if New York state and Connecticut are experiencing problems with air quality.

MR. PRINGLE: And to my knowledge, the only state that has really looked at that question is California, and has found a problem.

SENATOR SWEENEY: Well, we'll try to get that.

MR. PRINGLE: Right.

SENATOR SWEENEY: Thank you.

MR. PRINGLE: I'd be interested to hear the Committee's results on that, as well.

Because of the volatile organic problem associated with ethanol, if you-- What they need to do to come into compliance is reduce either -- hit other sectors of volatile organics harder and/or reduce the volatile nature of the base gas that ethanol is being released with. And if they-- To a degree, that's doable. New Jersey already has an incredible volatile organic problem as it is.

So we should be doing that anyway, in keeping -- again, if forced with the choice of MTBE or ethanol, we should be doing that anyway.

My understanding -- and this is based on the Department of Energy Information -- U.S. Department of Energy -- that the cost of gasoline with MTBE versus ethanol -- ethanol gas is \$.03.5 to \$.05 more expensive. If you factor in the four billion gallons we use in New Jersey, that comes out to be 150 to 200 million gallons per year. And, again, part of that is based on the -- you're only using half as much ethanol, by volume, as you would MTBE, and using more gas, therefore the increased expense. That doesn't factor in the increased transportation costs.

SENATOR SWEENEY: David, can I, again, interrupt you?

MR. PRINGLE: Yes.

SENATOR SWEENEY: How current is that information that you have?

MR. PRINGLE: I got it off the Department--

SENATOR SWEENEY: Yes, I understand. But what's the year that was--

MR. PRINGLE: I will find out. I don't have that off the top of my head.

SENATOR SWEENEY: I think that's old. I'd like to know when that data was collected.

MR. PRINGLE: It's currently on the Energy Web site, but I don't know based on when. So I will get back to you on that.

That figure doesn't include the transportation costs. Because of the nature of ethanol -- that it can degrade piping and such -- it can't be

transported by pipes. And that means additional costs, especially if you're not going to have a local source of ethanol. And as I understand it, the current proposed plan would use about -- or produce approximately 40 million gallons a year, which is only a fraction of what we would need in New Jersey, if we're going to replace MTBE in total with ethanol.

Just to emphasize a point, it's also our understanding that the amount of energy needed to produce ethanol, and transport ethanol, is more -- is greater than the actual amount of energy in ethanol. So for that broader scale-- I know they're getting more efficient, but I still think-- And that makes it less bad, but it's still not there.

SENATOR SWEENEY: Dave, one argument though. When you throw in the factor that farmers are growing crops -- watering and growing crops that's taking energy -- that they would normally be growing and watering crops for us to consume. And the fact that maybe ethanol keeps the farm there rather than it be bulldozed over, as we both would prefer not to see happen--

When I heard that earlier-- I don't know how you put the energy equation of growing a crop into the production. I mean, maybe the production, the water, all the other issues you can make-- But growing crops is what farmers do. And that energy's there whether there's ethanol or not.

MR. PRINGLE: And that reminds me of a point I wanted to make earlier. Our testimony is not anti-farmer. But I think it's important to know what's really happening with this legislation. And I think this is-- Getting in some of my additional testimony, I think this is more a pro-farmer bill than it is an environmental bill. And I certainly don't want to take an anti-farmer position, although some of my friends in the farming community might dispute

that at times. I would like to find other, better ways to promote the agriculture industry in New Jersey than this particular bill.

I think it's unfortunate and notable that neither the Department of Agriculture or Department of Environmental Protection are here. It's my understanding they're not planning on being here to testify or providing the Committee input. I think that should not go unsaid.

And I think what I'd just like to close with is, what we would like to see is those alternatives. I think, first of all, the MCL in drinking water in New Jersey is pathetic at 70 parts. It's totally unacceptable. I'm a member of the Drinking Water Quality Institute -- which I know the State drinking water law advises DEP in what new standards should be. And the Department has asked us to take a look, and we are taking a look. But I would-- And I know Senator McNamara has a bill that this Committee passed that tells DEP to revise that standard. So I don't think we need legislation. But I think it would be helpful for all of you to continue watchdogging that process, and staying on top of DEP, and making sure that we come up with a new, better standard no matter what.

An additional part of our testimony, getting back to it, because there was one point I forgot-- This legislation doesn't deal with any of the 40 years of past contamination. So whether we have this legislation or not, we still have 40 years worth of MTBE to deal with. And as we've heard, it's not going to degrade any time quickly at all. So this would certainly make the MTBE -- wouldn't make the MTBE problem worse. It's not going to make it -- it won't make it more worse, but it's not going to make it better, because we have 40 years of contamination already out there.

SENATOR SWEENEY: Again, Dave, real quick statement. If we don't ban it, we'll have 40 years plus 40 years, plus 50 years if we don't do something about it.

MR. PRINGLE: Unless we get our act together better. And I think this Department is starting to do that.

The ideal solution is to get rid of the oxygenate requirement. I would actually prefer a waiver than the Federal legislation, because I think while we might like that little atom in the pill of the Federal energy legislation, I'm willing to bet there's unanimity on this Committee, both Democratic and Republican, that that energy bill is going to be an atrocity when it comes to the environment. So hopefully that bill won't happen, and there are other options out there for us.

But we would like to see that waiver. We would like to see DEP be much more aggressive in their enforcement. I think they're starting to get there, but they're not there yet -- witness money sitting in certain constitutionally dedicated funds and not getting out the door getting the job done. Some of that requires additional legislative and/or constitutional changes.

SENATOR SMITH: Well, you know, on that point, you may remember that we did a constitutional rededication of the CBT funds to have more aggressive enforcement of underground storage laws.

MR. PRINGLE: Right.

SENATOR SMITH: So I would respectfully disagree that it's not being used to aggressively enforce our underground storage tank laws.

MR. PRINGLE: But I'm not saying it's not. I'm saying it could be done even better, because we still have some money sitting in--

SENATOR SMITH: Always room for improvement.

MR. PRINGLE: Right. I would suggest a lot of room, although it's not through fault of the folks in this room that it's not being better spent.

So rather than this legislation see -- MCL, better enforcement, the Federal -- if we have to swallow the Federal legislation, so be it. We shouldn't lobby for it, but it might solve the problem in and of itself. Aggressively seek the waiver.

And it's also my understanding -- and I don't have enough information to really testify on it -- but it's my understanding that there is some new types of reformulated gas that might get the oxygenate situation under control without having to be any of these current oxygenates, all of which are problematic, whether it be ethanol, MTBE, or some of the ones the EcoComplex earlier testified to.

Thank you.

SENATOR SMITH: Thank you.

Gloria Gledhill, from the New Jersey American Water.

**G L O R I A   G L E D H I L L:** Good afternoon.

I'm here representing New Jersey American Water, and I will be very brief.

As the state's largest water provider -- we have over two million residents -- two million customers across the state that we provide drinking water to -- I just wanted to commend you on your efforts. We support the bill, as we would like to see the discontinued use of MTBE. And we support

immediate phase out of it, as there is a significant impact on the groundwater and, therefore, a significant cost attached to removing it from the water -- the treatment process and the testing.

So with that in mind, we support the bill, and we thank you.

That's it.

SENATOR SMITH: Thank you.

Monte Shaw, Renewable Fuels Association.

**M O N T E S H A W:** I handed in testimony earlier. So, hopefully, that's somewhere.

I appreciate being here. I know it's been a long day, so I will try and speak loudly and wave my arms or something to keep your attention.

My name is Monte Shaw. I'm with the Renewable Fuels Association. We're the national trade group that represents ethanol producers. So there should be no doubt where we're from.

I didn't realize you could not mark a box, so I think I marked one. But I should state that as a national ethanol trade association, we do not take a position on state MTBE bans. However, as has been the case in almost every state where it's been discussed, you can't talk about banning MTBE without getting into a lot of ethanol issues that you've heard today. And, therefore, a lot of misinformation is put out there. And so I'm here today to try and clean some of that up. And I'd also be happy to take any questions that you might have.

In a sense, New Jersey benefits from some of the actions that have happened in other states, such as your neighbors in Connecticut, New York, or out in California. There is a track record. This is no longer a theoretical

exercise. We have over a year-and-a-third worth of data to look at. And so I think when you're asking, can we ban MTBE to protect drinking water without harming air quality, without harming -- raising gasoline prices, you can look at the track record and feel very confident in saying, "Yes, we can do that." If you choose to ban MTBE, ethanol can replace it with none of those negative side effects.

And I want to commend the Committee on their questions so far. I think I can skip over some of this because-- A lot of places I go, people don't even understand ethanol is grain alcohol. It's moonshine. We like to think that we're a little bit more sophisticated than that term might use. But it naturally occurs in the bloodstream. You're going to consume more ethanol with a drink -- maybe after a hearing this long, that's not an uncommon thing -- than you will ever get from exposure to it through gasoline. There's a lot of studies that say if you have a drink or two a day, that actually has numerous health benefits. Of course, if you have seven or eight drinks a day for 20 years, you might get liver cancer, or other bad things are going to happen. You guys covered that earlier, so I'm not going to go into that. But that's what we're talking about here.

I was going to bring a little bottle of vodka. Vodka is generally 40 percent ethanol, 60 percent water. That's what it is. You take the water out, that's what we put in the gasoline.

SENATOR SWEENEY: I'm in trouble. (laughter)

MR. SHAW: We talked a lot about ethanol is-- One of the previous people talked about California being a leader in this. I didn't want to bring it up on the train -- it stands about this tall, it's in my office -- it's the

Comprehensive Health and Environmental Assessment of the Use of Ethanol as a Fuel Oxygenate. It was undertaken by California. They had a whole multi-faceted group from CARB, their health -- the California EPA and all these people came together and, literally, chopped down numerous trees to print out this report. And at the end of the day, what they did is, they gave ethanol a clean bill of health to replace MTBE in gasoline. So a lot of these questions have been asked and answered back in 1999 and 2001. I've got it on CD. It's my only copy, but I'd be happy to try and get another set if someone really wants to read all that. So that has been done.

There has been a lot of talk about ethanol's energy balance. If you stacked up all the papers on energy balance, you'd have a stack about this high that says ethanol has a positive energy balance somewhere between maybe 40 percent positive. The latest U.S.D.A. numbers are 67 percent positive. You'd have one report over here that says it's negative. Well, one-and-a-half. He's got a colleague in California, now, that is using the same data and methodology.

Ethanol has a positive energy balance. We are, quite frankly, kind of partially solar energy. The corn uses the sun when it grows. So even when you factor in the energy inputs in the farming, which you discussed-- Even with all that in, even with transportation between farms and ethanol producers, ethanol producers and the marketplace, for every BTU of fossil fuels you put into it, you get out 1.67 BTUs on the other end, according to the U.S.D.A. experts in this field. I'd also note that very little of that is actually petroleum. It's mostly natural gas -- some coal in areas of the country where they use that for electricity. So, from a gasoline standpoint, energy dependent standpoint,

for every one BTU of petroleum that goes into this whole life cycle, you get out over 13 BTUs of ethanol.

I'd also like to note that New Jersey, right now, is using a boutique fuel. We had the map up here earlier. You're surrounded by the New York Harbor. Northern New Jersey, where you primarily use the reformulated gasoline, are the New York Harbor market. The other participants in that market primarily use ethanol-blended RFG -- New York and Connecticut. Ethanol is blended in 30 percent of all gasoline. And it's actually, now nationwide, blended in more reformulated gasoline than MTBE. So MTBE is no longer the dominant oxygenate, even within the reformulated gasoline program. And certainly, right here, you have a bifurcated market, that if you banned MTBE and went to ethanol -- which certainly simplifies some storage, and transportation, and issues of that nature -- and it would unify the marketplace.

I'd also note that in terms of supply, the Colonial Pipeline is, recently been -- that's what brings the 40 percent that comes up from the Gulf, or whatever-- I don't know the statistics. Someone said it earlier. That Colonial Pipeline is now full. They're doing allocations. No more gas can come up here to meet the demand. Ethanol comes on unit trains, or by barge, water shipments. So it's a way to add 10 percent of the supply that doesn't come through that pipeline. And it uses a different thing to expand supply. I think that's important to know.

Back to the ethanol record. If you look at California, you look at New Jersey -- or excuse me, we're in New Jersey. I'm sorry. You look at New York or Connecticut -- there's a track record there. Pat Perez, who's the fuels

expert with the California Energy Commission, was recently quoted in *Sacramento Bee* on this very topic, saying, "We really didn't see the anticipated price spikes due to ethanol." There were predictions of 50 percent, 100 percent price spikes. Nothing happened.

In New York and Connecticut, the same predictions were made, and yet the price of ethanol RFG in New York has been at or below the average price of reformulated gasoline across the country. And, in fact, if you look at the statistics, it's often been very similar in price to conventional gasoline, supposedly the cheap gasoline, to produce in the New York area. And I have some numbers in there.

And, in fact, you're closer to home when the Coalition of Northeastern Governors, known as CONEG, looked at this. They talked about how the infrastructure was developed in time. And then to highlight one of their quotes, they said, "MTBE ban-induced price increases have not been reported by EIA" -- that's the Federal agency -- "New York, or Connecticut, who are monitoring prices. California energy officials report a similar experience in meeting their January 2004 MTBE ban." This is not a study, this is not a prediction. This is what happened and what the experts are saying about it.

Then I'd really like to focus your attention on this next chart, which looks at wholesale gasoline prices. I know we had a debate earlier about, is New Jersey historically cheaper or not cheaper than New York in retail prices. You're part of the New York Harbor market. So we can compare apples to apples at the wholesale level. If you look at that, you can see that wholesale RFG 87 -- that's what has MTBE in it -- is around -- and this was for

Monday -- it can always vary a few pennies -- but around \$1.70 on the wholesale markets. The blend stock for ethanol -- that's supposedly expensive blend stock that has -- that you use for ethanol, someone mentioned earlier. It's at about the same price, a couple of pennies difference.

If you look at the net cost of ethanol to refiners, it's down to basically \$.70 a gallon. That's a dollar cheaper. So if you displace 10 percent of that gasoline portion that's up at \$1.70, with 10 percent of the ethanol portion that's now at \$.70, that's \$.10 a gallon cheaper on the wholesale market. I can't promise you that would get passed along to consumers. You'd have to talk to the people who market the gasoline for that. But that is what the market is showing now. That's delivered, that's in New York Harbor, that's not somewhere in the Midwest. So this is right here, this is-- You could be buying this gas today. It's a phone call away. I have plenty of members who would be happy to ship the additional ethanol. We ship most of the ethanol into New Jersey right now, and it's blended and sent into the New York market. They were talking about lead times earlier. I just might note that most of the transition that needs to be done is already done, because your terminals are already set up and already using ethanol to supply to New York and Connecticut markets. And they'd be the same terminals that would supply the New Jersey market.

I want to spend a little bit of time-- I appreciate your time here. I want to spend a little bit of time on air quality, because we've heard so much about how ethanol would increase air quality -- or increase smog or VOC evaporation emissions, as if it were some sort of fact.

When you look at smog formation, you have to look at total smog-forming emissions. With ethanol, you heard a little bit about permeation. And I know that there's been a lot of paper floating around this building with the word *permeation* in it. There is a small and declining increase in permeation emissions with the use of ethanol. That's been documented. There's further research going on right now that the American Petroleum Institute, Automobile Alliance, ethanol industry, California and others are in, to better quantify it. There is a small increase. But that's one subset of evaporative emissions.

With reformulated gasoline, the volatility that I heard some people mention in the summer is the same as it is now. You have a different blend stock. So there are no more evaporative emissions from the volatility of gasoline, whether you use ethanol or MTBE. It's federally capped -- it's capped by law.

Then you have the tailpipe side. On the tailpipe, you get additional reductions in ozone forming emissions with the use of ethanol, reductions in VOCs, reductions in carbon monoxide, which the Blue Ribbon Panel -- which you've talked about, other people have talked about -- said CO tailpipe emissions could be the cause of -- is as much as about 30 percent of smog. When you take these into consideration, ethanol -- especially with the fact you're going to use 10 percent blends-- I know that was a question. They're already doing it in New York and Connecticut. You use the same thing here. And I think the folks in the petroleum industry would back me up that if you go to ethanol, it would almost undoubtedly be a 10 percent blend. So that gives you additional oxygen, additional tailpipe reductions. So if you

take these all in a whole, I can say confidently that smog forming emissions, from a 10 percent ethanol RFG in New Jersey, will be at or, quite frankly, below -- because you'll have additional tailpipe benefits -- the current MTBE blend you're using today. And that's-- I think that's backed up by a lot of research.

If not, let's look at the real data. 2004 is when they switched from MTBE to ethanol in neighboring New York and Connecticut, and California. If you look at the chart that I put in my testimony, ozone exceedances went down dramatically in 2004. I'm not saying that that's a result of the use of ethanol. I think, for some reasons, it could have been partially to blame, partially responsible in a good way. But it certainly did not hinder this dramatic improvement in air quality.

In fact, I know that CARB was recently touted as the expert on these issues. If you go to the CARB Web site, and you pull down their 2004 review of this data, you will see, "Fewest exceedance days ever." You will see lower peak concentrations. And, in fact, we all know the weather plays an important role in smog formation. So CARB, doing the job they do, also looked at how did 2004 compare to other years with similar weather? For instance, 2003 was terrible weather for smog formation. So when they compared it to other years, smog exceedances dropped compared to other years with similar weather. So it wasn't a weather factor.

So I think, if you look at that, you can see it. In New York, you went from 27, 39, 24 exceedances down to two last year. And, again, I think part of that probably had to do with additional oxygen from blending not just at the 5.7 level, but at the 10 percent level. So you can look at real-world data.

Was it ethanol? I don't have a study to prove it today, but we can look at the data and know that the use of ethanol did not prevent these reductions from happening.

I've taken up more than enough of your time. I apologize for that. But I just wanted to set the record straight on some of those things. I think there's a strong track record to look at. I think that you can look at the fact that the investments made in New York and Connecticut, even in California -- a market of that size -- were all done within about a 12-month time frame. They had more years of that of lead time. But they only actually started doing the work at about 12 months out. And the fact that New Jersey already has most of the work done, because of the transition in those markets -- and feel confident that ethanol can seamlessly replace MTBE, if you decide that's what you need to do to protect your drinking water.

I thank you, and I'll take any questions.

SENATOR SMITH: Appreciate your comments.

One of the more striking things about today's hearing is that everybody -- and the people who are all here, I think with good faith and good will, are trying to present what they believe to be the truth. But we have diametric lead points -- diametric points of view that we're either going to have more expensive or less expensive gasoline if ethanol is chosen to replace MTBE. And we're either going to have more air pollution or less air pollution. And it's amazing that everybody is absolutely sincere in their beliefs and in their testimony.

MR. SHAW: I think-- If I could just say one thing, I think there's a lot of studies out there that come to these different conclusions. And that's

why I try to point -- look at the wholesale marketplace data today on gas prices. It is what it is. That's what your retailers or your marketers could buy today. It's real. It would be \$.10 a gallon cheaper on the wholesale level. And on the air quality, I'd also mention they use 100 percent gasoline blended with ethanol in Minnesota. All these criteria pollutants -- from CO, to NOx, to VOCs, that come down in the Wisconsin and Chicago markets where they've been using ethanol as the oxygenate since the mid-'90s -- all of the ozone occurrences have come down. And, in fact, they're very close to attaining -- to becoming in attainment with the ozone standard.

So I would just urge you guys-- We could have studies out the ears. And you've certainly heard a lot today. But look at the real-world track record. I think it has a pretty strong case to make.

SENATOR SMITH: Thank you for your testimony.

Eric DeGesero, Fuel Merchants, with a question mark as the statement as to what he's supporting.

**E R I C D e G E S E R O:** Thank you, Mr. Chairman.

It's been long, and I'll be brief.

And to the point of the question mark, I wish I'd gone back and reviewed the testimony that I've given over the years as the Legislature has considered these types of bills. And our position has been consistent all along -- that we need to urge the Federal government to remove the 2 percent oxy requirement in reformulated gasoline. And it looks as if we're on the way to having that done.

Our vested interest in this is, we're the small businesses that supply gasoline. And we can only sell what either the United States Congress

or the New Jersey Legislature mandates the major oil companies to make. And our concern is the cost-effective and efficient distribution of fuel. We certainly will have issues as it relates to: will there be co-mingling allowed, in terms of storage and distribution, in a transfer process. If you just flip the switch on January 1, 2010, you're still going to have gasoline -- assuming that -- whenever the effective date is -- you're still going to have gasoline in the tanks at your stations, at your bulk plants, on December 31, 2009, and will there be an issue -- will we be allowed to co-mingle. Because you could still have higher than the five-tenths of a percent that the bill allows for, in terms of a transition period. So that's a question just as far as the logistics of the distribution, because there could be associated penalties with that for failure to comply, in terms of distributing fuel.

Our members will certainly be customers of the ethanol plant that is being considered. We have members of our Association that are currently getting into the biodiesel business. So we are not hostile to ethanol in any way, shape, or form. But we're just concerned about how an orderly transition to it--

I would like to speak about the UST enforcement. I will hopefully have an answer 10 minutes after I walk out of this room, relative to what Maryland's requirements are. In New Jersey, last year, the DEP instituted -- and we set up seminars with the DEP to come and explain this to our members. We now have requirements that spill buckets be monitored monthly and before every delivery. We have requirements on piping sumps and dispenser sumps that, to the best of my knowledge, are the most stringent in the country, as far as UST system regulations are concerned. And the DEP is

looking actually at -- has put out a preproposal, for comment, on hydrostatic testing of spill buckets. Our concern is, we don't even know if the systems were designed to handle that type of evaluation.

So I would be very interested to hear what Maryland is doing that is ahead of the curve, where New Jersey is certainly ahead of the curve.

SENATOR SMITH: By the way, you're absolutely on message with the entire hearing -- the earlier testimony was that we're the eighth worst in the country. And your testimony is, you think we're one of the best.

MR. DeGESERO: Well, Senator Smith, that's only with regards to the regulations. But let's get to the enforcement, because I think that's where they said we're the eighth worst at.

The DEP -- and you can call the enforcement and compliance folks over there. They're out doing the State's two-vapor recovery, they're out doing complete system checks, they've shut down and fined distributors, as well as shut down stations, including--

I mean, we always think that it's the corner gas station that's a problem. With all due respect, municipalities, county governments, police departments, your local DPW-- That is where you're going to find some noncompliance issues, as well. And the Department is out, very actively, right now, today-- The money has been set aside. That was discussed. We're the eighth worst. That was-- I'd like you to hear from the Department, what they're saying their track record, as far as enforcement, in the last 10 months, 12 months that they've been out on the-- I guess they started actively with the beginning of this fiscal year, when the money actually transferred into the Department's account to do it. So they have been quite aggressive.

Lastly, just a point of clarification, because it's been mentioned a couple times today, regarding the MTBE liability safe harbor in the Federal bill. Let's be very clear that that safe-harbor provision is from defective product lawsuits only. It is not -- absolutely it is not for-- If you own a station, you caused the discharge, you're responsible for remediating it. That bill in no way, shape, or form, absolves you from remediating the problem that you caused.

So, I thank you for your time. It's been a long day. And I hope to go have some ethanol mixed with water myself, Mr. Chairman.

Thank you.

SENATOR SMITH: At some point today, when you do check that other set of regulations--

MR. DeGESERO: In Maryland. I will certainly get to you.

SENATOR SMITH: --it would be nice if you would send us a little letter evaluating how you think New Jersey and the other state compares.

MR. DeGESERO: I'll begin the process later today.

SENATOR SMITH: We'd appreciate that from your industry, from your group.

MR. DeGESERO: Thank you, Mr. Chairman.

SENATOR SMITH: Pete Furey, New Jersey Farm Bureau.

Pete, my apologies to you. I got a note that, in a certain order of people, it would have been preferable to put up -- but they all turn in their individual slips. So as I was going through the slips, we ended up wiping that out. So I apologize to you for that, but we would very much like to hear from the representative of the farmers of our state.

**PETER J. FUREY:** Actually, I'd like to allow somebody to go in front of me who has asked to catch a plane.

SENATOR SMITH: Somebody has to catch a plane? Who's that?

MR. FUREY: That's--

SENATOR SMITH: Mr. Coleman.

**BROOKE COLEMAN:** Yes.

SENATOR SMITH: Okay, you were next. But that's okay.

Mr. Coleman, from the Renewable Energy Action Project.

MR. COLEMAN: Thanks for giving me an opportunity to speak today.

I, like the others, will try to move as quickly as possible.

SENATOR SMITH: Sure.

MR. COLEMAN: My name is Brooke Coleman. I'm the Director of a national environmental coalition.

It's about 35 groups from coast to coast. We've worked on MTBE bans in New York, Connecticut, and California. We've worked for five years on issues related to ethanol and MTBE, specifically in California. I've been an MTBE activist since 1997, when I worked for the *San Francisco Chronicle* to bring this story in San Francisco. At that point, 10,000 wells in California were tainted with MTBE.

I'd like to talk quickly about air quality, because I know that's one of the issues on the agenda today. My expertise is in air quality. My group is based in California, so I know a little something about California.

There's some basics that you need to understand about the air quality argument. First of all, ethanol, by itself, is cleaner than gasoline. When you put them side by side, you would rather drink ethanol. The problem comes -- and the perceived problems--

SENATOR SMITH: Not even a close call.

MR. COLEMAN: The perceived problem comes -- when you mix the two things together, there's a chemical reaction that takes place. And this is where you get into the theoretical side of the science on this, and why you have people on both sides of the issue. The question is, when you take the cleaner fuel and you add it to the dirtier fuel, does the reaction make the overall cumulative fuel worse, or is it overwhelmed by the benefits of adding a cleaner fuel to a dirtier fuel? So that's the question. And there's a lot of theory about that.

But in the end, the bottom line -- the biggest benefit that New Jersey has, the luxury that New Jersey has that California didn't have in 1998 -- that a lot of these states that have already banned MTBE did not have in the past -- is that you have more than a dozen test dummy MTBE ban states. So you have an overarching amount, an overarching, sort of, blanket of empirical evidence to look at. So when you asked, did any of the other states that have banned MTBE have air quality problems, the answer is no.

And let me tell you why the answer that was given-- California is wrong. California, in 2004, had a record smog day year. That means they had the fewest smog exceedance days in recorded history during a normal weather year. That's one year. They started blending ethanol on January 1, 2004. But

when you start to look at it with all the other states-- Look at Connecticut, for example. And I do have some of the numbers here.

Let's look at it. Eight hour ozone -- 2001 to 2004 -- eight hour ozone exceedance days dropped from -- went from 26 in 2001, to 36 in 2002, to 14 in 2003, and now, when ethanol is being blended, six. New York: 17 in 2001, 28 in 2002, 15 in 2003. Ethanol blending in 2004: 1. So you start to see a pattern here between these numbers.

The other thing is, I was in California during the Federal rule making -- during the state rule making process for California RFG 3, which means I was there when ARB ran their Urban Airshed Model runs. And nonoxygenated fuel -- the fuel that would replace all these oxy fuels if the waiver went through -- performed worse in increased smog in the air basins that they ran those models in. I was there in 2001 when ARB partnered with the Automobile Alliance. At the same time they were saying that NOx emissions increased with ethanol blends, those car tests showed that NOx emissions were reduced with ethanol blends.

Moving on, there's another thing that people need to realize in this scenario. There are two fuel regulations, predominantly, in this country. You have the predictive model in California, and you have the complex model for everywhere else, under EPA jurisdiction. When you take a fuel, and you're a refiner and you want to blend that fuel, your fuel has to pass these models. If you have ethanol blends -- if you have an ethanol blended fuel in New York, you can't just show up and say, "By the way, my ethanol blended fuel increases NOx. Do you care?" That's what the regulation regulates. That's what it prevents from happening.

So we have people all over California saying, "Oh my god. Ethanol is increasing NOx all over the place." NOx is the most controlled criteria pollutant in the California predictive model, by far. The California predictive model is extremely sensitive to NOx. So I seriously doubt whether an ethanol blend is going to show up and sneak one by the computer model.

I'd like to also talk for a second about this unknown component of today's testimony. Ethanol is easily the most studied gasoline additive. You want to put all these additives together. There's about a hundred of them in base gasoline, then you've got MTBE and ethanol. It is by far the most studied additive -- by far in the whole mix. We've been using it since the mid-'80s in the Midwest. The California Air Resources Board did two years -- an exhaustive two-year study on the fate and transport of ethanol. And, sometimes, when you go to these state hearings -- and they're all the same. The same crew of people show up and say, "Hey, this is premature." Actually, not. This has been studied for two years. Fate and transport includes what it does in gasoline plumes, it includes what it does in pipelines. I have had several of the top brass at ARB look me straight in the eye and say, "In terms of fate and transport, ethanol gets a 'clean bill of health.'"

I want to talk quickly about the landscape of these MTBE bans, continuing where I've already started. Again, we've worked on MTBE bans in New York, California, and Connecticut, and several other states. These bans always start with this kind of bill. And stakeholders -- the oil industry, MTBE industry -- show up and try to complicate the process. This is not a complicated process. Just ban the chemical. California did it, even though they were worried about doing it. Petrified, you might add. The governor was

wandering around -- Governor Davis, at the time, was wandering around going, "If we don't get this oxygen waiver, we're going to have increases in gas prices by \$.50 a gallon." Well, now we have Valero Energy Company in California admitting, in several major news stories, that ethanol extends supply and reduces gas prices.

So there's one important part of this that you have to take with a grain of salt, these arguments that have been made already. Pump price increases-- We've been talking about pump price increases since 1998. In some of these areas, spot market prices are a buck a gallon less for ethanol. There's no possible way that pump price increases, in the current scenario -- that there are going be pump price increases in the current scenario. And then, if you really want to talk about it, if you really want to, sort of, get outside of this issue, why in the world would the ethanol industry jack up their prices beyond base levels in gasoline when they're trying to grow an industry? Do you think they want you guys running out and going, "Ethanol is controlling the gasoline market?" We need to give you guys weapons to use against them in a waiver request, or for that matter, in the foreseeable future. I mean, that's sort of counterintuitive if you're in the ethanol industry.

So the fruit of that, the obvious part of that is in California right now, gas prices have gone through the roof. And the ethanol industry has increased their prices. But their prices haven't gotten anywhere near the wholesale price of gasoline in that state.

Shipping and infrastructure: There's a lot of people that will show up and say, "There's shipping problems and infrastructure problems." But if you actually call the shipping and infrastructure companies and ask them, "Is

there a shipping and infrastructure problem with ethanol?" The answer that they gave me, that they will probably give you is, "Why would we want there to be -- why would we not want to accommodate the oil industry if they tell us that next year they want to blend 6 percent ethanol? That's 6 percent of a market share loss for us. If they tell us what they're going to do --" and this is a direct quote "-- we'll do it." That's common sense.

Second of all, air quality: Again, for those that say there's an air quality problem, I invite them to point-- I mean, the obvious question is, where? We've been using it for two-and-a-half decades. Where is the air quality problem? What they're referring to -- I can refer a second to evap emissions -- is a study that's coming out of California that talks about what happens in ethanol blends when you put them in cars and the cars have evaporative emissions.

A word about evaporative emissions. First of all, evaporative emissions have been around forever. Regulatory agencies have been pushing car companies to seal their cars, seal their hoses, seal their seals for decades. Nonoxygenated fuels evaporate. So all of these fuels evaporate. So the question is, to what small degree -- and it is a small degree -- do ethanol blends increase evaporative emissions? And it's a question that exists within the model. They need to account for it. And in California, the irony here is that they already have-- There is a factor in the predictive model that penalizes ethanol blends for permeation emissions. What they're doing right now is trying to improve that factor and make sure that it's correct.

But for someone on the other side of the country to say, "Well, actually, this permeation emissions--" And the California Air Resources Board

is saying there's permeation emissions, and they exist in their own right -- that's not true. They're trying to improve their model. They're not unaccounted for.

Water quality: That's the most interesting one I've heard -- that ethanol is a problem, in terms of water quality and toxicology. I'm not sure that I'm even going to go there, because when we're talking about a \$29 billion problem, that's a water quality problem. Talk to the folks at the Association for California Water Resources about water quality problems.

Water quality, plume expansion, issues related to the toxic nature of ethanol have all been studied in the two-year analysis of ethanol's fate and transport, and that chemical was given a clean bill of health.

And I ask you, while we're on the subject, if you're seeking a waiver, what's going to replace oxygenates? No one asked that question. The answer I usually get is gasoline. In actuality, if you take out MTBE and ethanol, you have to replace the octane of those components. Forget the fact that they have to replace volume. Something's going in there, and it's not called *gasoline*. It's called *aromatics*, it might be called *alcoholates*. But no one has done a fate and transport study of those chemicals. And that's the mistake we made with MTBE.

When we were using MTBE at 2 percent as an octane enhancer, and the Federal government passed an oxygen standard, the oil industry said, "Oh, we've already got this thing in gas --" behind closed doors "--and we're going to just crank the volume up; we're going to sell this oxygen standard thing," no one looked into MTBE then. No one looked into the water quality problems. Well, less is going on now. Alcoholates are in gasoline, and they're

basically proposing to increase alcoholate content several fold. That's their solution to the oxygen problem. Well, maybe we should look into that.

I also -- again, returning to an old theme here. I think you have to take some of the testimony today with a grain of salt, because this is the same industry that marketed a defective product for 20 years. A jury in San Francisco has already found that. It's the same industry that concealed and acted with malice-- They concealed information about the dangers of MTBE.

They have one goal in mind as these states continue to ban MTBE, and that's ringing the last almighty dollar out of states that continue to use it. And I think New Jersey has to ask themselves whether they want to be one of those states, or whether they want to join with the states from the North, New York and Connecticut, and move away from this chemical. It's a simple solution. Just ban the chemical. It's been done.

It's a relief to come here today and sit through a testimony when other states have already done this. Because in the past, representatives of state governments have had the unenviable task of trying to figure out what might happen in the future when nobody knows. Now we know.

Thank you.

SENATOR SMITH: Thank you, Mr. Coleman.

Pete Furey, New Jersey Farm Bureau.

SENATOR SWEENEY: Excuse me, Senator. Can I just--

SENATOR SMITH: Yes, sir.

SENATOR SWEENEY: Some of the information that was just given-- Was that submitted? Do we have any written testimony on that?

MR. COLEMAN: I could provide you with some. I don't.

SENATOR SWEENEY: Would you please provide some of that, because I was asking some questions about some numbers, and no one had answers. So I would like to have them. Through the Chair, obviously.

SENATOR SMITH: Not a problem.

SENATOR SWEENEY: Thank you.

SENATOR SMITH: If you share that with us, we'll share it with the Committee members.

Mr. Furey.

MR. FUREY: Senator Smith, Senator Sweeney, thank you very much.

It has been a long hearing. I'm distributing a statement. I was going to highlight that. I think it's self-explanatory. Most of the points have been made. I'd like to use my time -- just a couple minutes -- to give some observations about what we heard, if I may.

I think the diametrically opposed positions-- We're coming from the point of view that the Legislature really has little choice but to ban MTBE. It's a contaminant. It's not getting people sick, necessarily, it's not a health problem. It's a contaminant.

We come into this issue because there's a lot of outlandish attacks made against the ethanol industry. And looking back on some of the testimony here today, I think it's correct to say it's in good faith, but there's -- I don't know if it's a bias, or pro-industry, or self interest. But there should be no hesitation or no concern about adopting a ban of MTBE because of a fear of what would happen with ethanol. I think the last speaker made that

abundantly clear. We are now getting the empirical data to answer any of the questions that have been raised.

I don't have to go through about price, the logistics to New York. The last speaker did a great job of talking about this bogeyman issue about air quality in ethanol. It's not a-- It's the same thing we would have now with MTBE oxygenated fuel.

In the Federal energy bill, there's concerns about the 2 percent waiver. I think Brooke makes a great point. If you waive oxygenates, you put a hole in your gasoline supply. MTBE is a contaminant, so it's just a matter of time before it goes out. So I think the renewable fuel standard in the Federal bill, with the oxygenate waiver, answers some of these questions about flexibility for the petroleum industry. Nature will take its course. Ethanol will come in here.

But I think, in terms of New Jersey's policy, you get on with renewable fuels, you get on with the future, by banning MTBE. Ethanol will come in. You won't have price spikes, you won't have adverse environmental effects. The last speaker said you do have the track record, and I think that speaks volumes, as far as hearing two diametrically opposed views. You have a track record.

One last thing, with careful deference to this Committee and the Chairman. We just passed Highlands legislation for drinking water protection. There's some very strict standards in there. It truly alarmed a lot of farmers, their lands that -- unnecessary regulation -- new people calling the shots for the way they run their business. And we tried to temper that in the interest of the

long-term and experience we've had in trying to hold out for fair play. And you know that from our testimony.

But here we have an environmental issue that's in the drinking water. Those people from Ringwood, I think, are the tip of the iceberg. Why do we have a 70 parts per billion standard? New York is 10. The EPA, that everybody rails against, is 20 or 30. We're twice as high. And we have just passed Highlands legislation that's 300-foot setbacks from streams, by the chance that some building activity is going to contaminate the stream. And this is in the groundwater. You talk about diametrically opposing views--

So we would think, from consistency and equity-- If you get on with the business at hand, banning this as the sponsor has proposed -- and have a lot of confidence that the fuel supply will be intact with oxygenates. Ethanol is growing by 20 percent a year. That's answering questions as we go.

I think we might have an East Coast urban bias against ethanol. A lot of what I heard today is just fear. It doesn't really add up.

That's all I have. Thank you.

SENATOR SMITH: Thank you, Mr. Furey.

Dena Mottola. (no response)

I guess Dena left. Last call, no pun intended.

We appreciate everybody coming today. You gave us lots of information, lots of things to think about. And your input makes all the difference.

Oh, there's Dena Mottola.

**D E N A   M O T T O L A:** Hi.

I'm Dena Mottola, the Executive Director of New Jersey PIRG. And the main thing I wanted to say is I just think that the bill needs one more thing, which is-- Before we move forward, I think we should be doing a better study of the air quality benefits. We need to compare the air quality impact of replacing MTBE with ethanol, versus no oxygenate at all. That's the main thing, because I think that we're hearing conflicting things.

Sorry, I just walked -- ran down the hall.

We're hearing conflicting things. The research is conflicting. We're hearing people from California saying one thing. Some of my national people, and the people -- experts I trust in the state -- are saying conflicting things. And I just think that we need to do the study. I don't think it would take that much. And the study needs to be, obviously, objective from any of the industry groups, because some of the studies that they quote are not completely objective.

And what we need to do is, we need to study the VOCs, the NOx, air toxics, and CO<sub>2</sub> separately and then decide what is the best solution. I'd like to see this bill being driven by air quality concerns, as well as water quality concerns. There's no question we should ban MTBE. I completely agree. But before we move to another solution, let's be clear about what the impact is going to be. And I don't think we know that.

You can't point to the number of smog days in different states over time. Even we've said it to this Committee in the past, on other air quality issues we've worked on -- you can't look at that. Weather plays such a role in smog days, because-- In New Jersey, any day that's over 85 or 90 degrees is a smog day. And then, of course, every year the weather is different

and the temperature of the outside air is different. So I would say that I think this bill needs more analysis before we can really move forward. And that's, at this point, why we are opposed to it.

Thank you.

SENATOR SMITH: Again, thank you all for your participation today.

SENATOR SWEENEY: Might I say just--

SENATOR SMITH: Oh, Senator Sweeney.

SENATOR SWEENEY: I'm going to let you go.

MS. MOTTOLA: I'm sorry.

SENATOR SWEENEY: But I think there is enough historical data, now that you have 19 or 18 states that have banned it and that have put something in place to ban MTBE -- I guess I got it right.

And the other thing that really has to be looked at -- and it was touched on earlier -- is, if you take MTBE out, you have to replace it with something for one reason. You're going to drive your fuel cost through the roof if you don't do it, because you're going to have to make up that consumption. That burns as well as everything else, and it has to be made up. So there is a price to banning MTBE. You need something to take its place.

Thank you.

SENATOR SMITH: Thanks to all.

**(MEETING CONCLUDED)**