BY MR. MILLER:

Q. What I'm trying to understand, if we look at this quote, it says: The concept of reformulated gasoline, RFG, was originally generated, developed and promoted by industry.

A. Yes.

Q. Is that consistent with your understanding that the original source of the idea was with industry?

MR. BROMME: Objection. No foundation.

THE WITNESS: What I recall is the EPA was actually promoting using methanol blends -- or not methanol blends, but actual methanol fuel as a way to, in nine or ten various cities, and the refining industry said here's another option, that, you know, we can reformulate gasoline to reduce the emissions, you know, that would be equal to or better than you would get by substituting or
mandating the use of methanol vehicles in gas -- or, you know, methanol vehicles in these eight or nine various cities. So it was, you know, it was brought to the attention the oil industry, refining industry brought this forward as an alternative to what the EPA had initially proposed which was methanol cars being put into nine various cities.

BY MR. MILLER:
Q. Okay. You said as an alternative to this. So basically the EPA suggested methanol as a potential ingredient for gasoline that might improve --
A. No. The EPA actually, as I remember, supported -- originally supported the use of methanol, just methanol and eliminate gasoline, but to do that would be very difficult for the refine -- the auto industry and refining industry because you would have to
William J. Piel

1. develop totally new cars to -- that
2. would just run on methanol fuel, not
3. gasoline, but methanol fuels.
4. Q. Okay.
5. A. And that would take -- be
6. long, expensive and take a lot of time to
7. realize the benefits of any such program.
8. Q. Okay. And then you said
9. that the oil industry developed the
10. alternative of not using ethanol but
11. instead using an alternative product
12. which was what?
13. A. Reformulated gasoline, but
14. it wasn't the ethanol. You had said
15. ethanol. I was saying methanol.
16. Q. I'm sorry. I hope I said
17. methanol.
18. A. No, you said -- I was
19. listening to you.
20. Q. Okay.
21. A. To the concept of using a
22. methanol fuel, the refining industry had
23. developed the concept -- another
24. alternative to achieving the clean air
benefits and they blended or came up with this idea or concept of changing the properties of gasoline to reduce the emissions and they had -- I think prior to 1990 but I can't remember exactly there was a number of demonstration programs conducted by various refining industry people to illustrate how effective reformulated gasolines can reduce emissions from existing vehicles.

Q. And was MTBE one of the key ingredients in that reformulated gasoline that was just discussed?

MR. MOLLER: Objection to the use of the word "key" as being a subjective term and, therefore, vague.

THE WITNESS: MTBE as I recall was, was a popular ingredient. Many of the refiners demonstration programs had used MTBE as a way of achieving the favorable properties that would make the gasoline burn cleaner.
Properties were such as reducing aromatic content, improving the distillation properties or temperatures of the gasoline, as well as reducing vapor pressure. These were things that made the gasoline -- reduced the emission such or the gasoline in the car and MTBE was one of the more useful or helpful ways to achieve those gasoline properties.

BY MR. MILLER:

Q. Okay. Could you tell me the names of some of the members of the oil industry that participated in demonstrating that reformulated gasoline could improve air quality during the time period we're talking about which is before the 1990 Clean Air Act amendments?

A. Just to rephrase your statement a little bit --

MR. MOLLER: Objection. I think the question's vague.

THE WITNESS: Yeah, I was
going to say, right, would you say it again 'cause it was a little vague. I was trying to understand it.

BY MR. MILLER:

Q. Yes. You mentioned some members of the oil industry had demonstration programs --

A. Right.

Q. -- to show that reformulated gasoline would improve air quality; correct?

A. Right, right.

Q. And this was occurring before the 1990 Clean Air Act amendments; is that correct?

A. Right.

Q. Okay. Could you tell me the names of some of the members of the oil industry that had such programs that you just described?

A. I specifically remember like Philips and ARCO had individual programs. They weren't combined. But I --
Q. This would be the Atlantic Richfield Company?

A. Right.

Q. Okay.

A. Yeah, I mean ARCO Chemical did not make gasoline. I mean we weren't in the business to make gasoline.

The -- so Atlantic Richfield, ARCO Products Division, Philips Oil, and I sort of recall being about four programs, four individual programs by four individual different companies that were independent programs, but I can't recall who the other programs were, but I sort of recall Philips and I recall the ARCO program.

Q. Okay. Now, with that in mind, do you agree or disagree with this statement: The concept of reformulated gasoline, RFG, was originally generated, developed and promoted by industry not the Environmental Protection Agency or other parts of the federal government?

MR. MOLLER: I'm going to
object. That question was asked and answered several times already.

THE WITNESS: No, I agree, the EPA did not initiate reformulated gasoline.

BY MR. MILLER:

Q. Okay. If you look a little bit lower in the same document, the third bullet from the bottom it states: Throughout much of 1991 EPA participated in a regulatory negotiation process with the petroleum industry, oxygenate industry, state and local organizations, environmental groups, auto manufacturers, organizations representing the public and other governmental agencies to lay out the framework for RFG rule making. Do you see that?

A. Yes, I do.

Q. Are you familiar with that subject?

A. Yes, I am.

Q. Were you involved in some of