EXHIBIT B

In The Matter Of:

THE CITY OF NEW YORK, ET AL v.
EXXON MOBIL CORPORATION, ET AL

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and unbranded distributors, is that right?
A. That's correct.
Q. You did that in an attempt to in part alert them to the environmental dangers of gasoline releases from underground storage tanks?
A. That was correct.
Q. In 1984 and 1985 your colleagues at Exxon approved the use of MTBE in gasoline, is that right?
A. That would be correct.
Q. At the time your department identified MTBE as an additional risk, environmental risk, to gasoline, correct?
A. We were aware of the risk because it was in the distribution system, that's correct.
Q. But you understood, did you not, that adding it to Exxon's gasoline would result in an incremental environmental risk because of MTBE's properties, correct?
A. If it leaked into the -- incremental risk as you're saying and I'm saying. It was already in the distribution system by other companies, and it would be an incremental risk if it was discharged into the groundwater.
Q. Discharges into the groundwater you were aware at the time certainly were occurring at gasoline stations all over the country, correct?
A. I didn't know. I can't say all over the country. But I do know that there were instances of gasoline tank leaks.

Q. At the time, sir, weren't almost three-quarters of the gas stations in the country owned by small independent businesses as opposed to large oil companies?
A. I'm not aware that statistic, but I will confirm that there are independently owned service stations, that is correct.
Q. At the time there were, and there were a lot of them, isn't that right?
A. I don't know what "a lot of them" means. But I will say I will agree with you that there were independent operators.
Q. You were aware at the time, and you told us in fact, that Exxon's tank upgrade program was ahead of the rest of the industry, correct?
A. We believed it was.
Q. At the time there were independents' and other companies' gas stations that had not been upgraded, isn't that right?
A. That's correct.
Q. In fact, there were a lot of steel tanks still in the ground, right?
A. Yes, there were.
Q. In fact, when the EPA regulations that you were talking about came along in 1988, EPA gave gas station owners ten years to upgrade their tanks, didn't they?
A. You're isolating one part of what the EPA regulations said. They also --
Q. Didn't they give them ten years --

THE COURT: One at a time. Was it part of what they said?
A. It was part of what they said. I'll emphasize that.
Q. It was ten years, correct?
A. That's correct.
Q. So it was until December 1998, wasn't it?
A. Yes.
Q. That was for upgrading existing single-walled steel tanks that had been in the ground, correct?
A. The term "upgrading" to me means cathodic protection or interior lining. It does not include replacement or some of the other factors that were in the EPA regulations.
Q. Sir, weren't tank owners of steel tanks that were in the ground, existing tanks, as of 1988, when the regulations were adopted, given ten years before they had to replace those tanks?
A. On the condition that they followed other parts of the EPA regulations.
Q. That's right. That included things like leak detection, didn't it?
A. That included leak detection, you're right.
Q. Leak detection wasn't required, even by inventory verification, until years after the implementation of the regulations, isn't that right?
A. My memory tells me that they were required to have

inventory control the day that the regulations were implemented.
Q. Let's take a look.
MR. SACRIPANTI: Your Honor, are we going to go through EPA's regulations with this witness?
THE COURT: I don't know.
MR. SHER: We're going to look at tab 3, please. Liz, if you could bring that up. This is PL5524.
Q. Sir, you're familiar with the implementing underground storage tank regulations that were adopted by the U.S. EPA in 1988?
A. Yes, I was.
MR. SACRIPANTI: Your Honor, I would note an objection. This document speaks for itself. He can read from it if he likes. Is he asking this witness to read from the regulation?
THE COURT: I don't know yet. All I know is he is now asking whether he is familiar with it. He clearly was familiar, because a minute ago he said, oh, that was just part of the regulation. This business about ten years, he said that was just part of it, there are other requirements. It sounded like he knew the 1988 regulation pretty well.
MR. SHER: Thank you, your Honor.
Q. In fact, Mr. Curran, you testified that certain provisions of Exxon's program were also adopted by the U.S. EPA in these

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regulations, didn't you?
A. Yes.
Q. You showed us the chart?
A. Correct.
Q. You didn't tell us then that, for instance, with respect to upgrading underground storage tanks, there was a ten-year phase-in, did you?
A. That was to permit the industry to upgrade their tanks over a ten-year period, that's correct.
Q. If you will turn, please, to the third page of the document?
THE COURT: Is that had 083 or 084 at the upper left-hand corner?
MR. SHER: 083.
THE COURT: Upper right-hand corner. Look in the upper right-hand corner. Do you see 37083? Keep going. You're not in tab 3. I'm sorry. Tab 3.
THE WITNESS: Tab 3, all right.
THE COURT: It's about the third page in, 37083.
THE WITNESS: Got it.
THE COURT: Good. I think he is on 37083.
MR. SHER: Thank you, your Honor.
Q. With respect to the heading --
MR. SACRIPANTI: Can you employee that up, please.
THE COURT: Do you see in the right-hand column, B,

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"operating principles"?
THE WITNESS: I've got it.
Q. Sir, the statement is, "First, the regulated universe is immense, including over 2 million UST systems estimated to be located at over 700,000 facilities nationwide." Based on your experience with Exxon and the API during the period that you were employed with Exxon, you were familiar with the number of underground storage tanks around the country?
A. There were many estimates made, and this is as good an estimate as any.
Q. EPA continues, "Second, over 75 percent of the existing systems are made of unprotected steel, a type of tank system proven to be the most likely to leak and thus create the greatest potential for health and environmental damage." Do you see that statement?
A. Yes.
Q. Were you aware of that at the time in 1988 when these regulations were adopted?
A. The estimate, the 75 percent, I don't know if it's accurate, but it's a good estimate.
Q. Certainly you were aware of the similar number and distribution of unprotected steel tanks in the ground in 1985, when your company decided to add MTBE to gasoline, isn't that right?
A. The population is as stated.

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Q. Then, third, the EPA states, "Most of the facilities to be regulated are owned and operated by very small businesses, essentially mom-and-pop enterprises not accustomed to dealing with complex regulatory requirements." Do you see that statement?
A. I do.
Q. Sir, at the time of all of your work with the API and the EPA that you have been describing in your testimony, were you aware that most of the facilities to be regulated for petroleum by underground storage tanks were owned by mom-and-pop operations?
A. I was aware that a very high percentage was. I don't know how much "most" means, but yes, there were a significant number out there.
MR. SHER: Liz, could you skip forward --
MR. SACRIPANTI: For completeness --
THE COURT: Do you want to read the fourth?
MR. SACRIPANTI: Please.
THE COURT: "Fourth, numerous technological innovations and changes are now under way in various sectors of the UST system service community." You see, that right?
THE WITNESS: I see it.
THE COURT: And agree with it?
THE WITNESS: I agree with it.
Q. Those were in progress as of 1988, isn't that right?

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A. They were in progress.
MR. SHER: If we could skip forward, Liz, to page 37096.
Q. Mr. Curran, it's in the upper left-hand corner.
A. I've got it.
Q. Are you there? I want to direct your attention to the highlighted part at the bottom of the first column and continuing up.
THE COURT: Sorry. Which page this?
MR. SHER: 37096, your Honor.
THE COURT: 096?
MR. SHER: Yes.
THE COURT: I wasn't there. I apologize. Now I am.
MR. SACRIPANTI: I'm sorry, your Honor. This begins with a third problem. I assume there is a first and second problem.
THE COURT: Yes. I assume there is.
MR. SACRIPANTI: Are we going to read that?
THE COURT: Not necessarily.
MR. SHER: This goes to the issue of who owns the underground storage tanks that we were talking about.
Q. EPA stated, "A third problem is the nature of the regulated community. A large proportion of UST's are owned by small businesses with $500,000 or less in total assets. For example, 72 percent of all retail motor fuel outlets are owned by small

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businesses." Do you see that statement?
A. I do.
Q. Any reason to disagree with it?
A. No. But how do you define small businesses? NOJC, the National Convenience Store Association, and so on, they may be small businesses compared to major oils, but they are still very -- they have money. They are operating businesses that are earning money.
THE COURT: The statement here, I don't know if you agree with it or not, was that small businesses with half a million dollars or less in total assets. So there is a definition by these folks.
Q. Sir, you would free with me, would you not, that piping is an important source of releases at gas stations along with the tanks themselves?
A. At one time piping was a major source of leaks in the tank and piping systems.
Q. Thanks for the clarification. During the period that we are talking about, which is your employment with Exxon, piping was a major source of releases, correct?
A. And also piping leak detectors were developed to prevent it from being a major source of leak detection in 1971. I don't know how far back you're going, but I can tell you in '71 there was a leak detection method available and used by industry and required by the National Fire Protection.

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MR. SHER: I move to strike as nonresponsive, your Honor.
Q. My question, sir, is whether piping was a source of releases along with the tanks themselves during the period that you were employed at Exxon.
A. If you have taken the word "major" out, I'll agree with it.
Q. Do you have an estimate of what percentage of releases came from piping as opposed to tanks during that period? Let's restrict it to the 1980's.
A. What period are we talking about?
Q. The 1980's.
A. The 1980's. Piping leak detectors were required in pressurized piping systems since the early '70s by the fire regulations which are incorporated into the building code. So it was getting to the point where piping was no longer the major source of leaks.
Q. Let's go to page 37088 of the document we have just been looking at, the right-hand column, the bullet that is highlighted. EPA stated, "Most releases do not come from the tank portion of UST systems, because piping releases occur twice as often as tank releases. Spills and overfills are the most common causes of releases." Do you disagree with those two statements as of the period in the 1980's when this was published?
A. Yes, I do, because advances had been made in piping leak detection systems. Maybe the EPA wasn't aware of it.
Q. Let's go to page 37095. EPA wrote, "Estimates indicate that roughly 75 percent of existing UST systems are unprotected from corrosion." This is as of 1988. Do you disagree with that statement?
A. That's probably correct.
Q. At the time that Exxon put MTBE into gasoline in 1985, is it fair to say that it was aware that 75 percent of the tank population into which gasoline containing MTBE would go were single-walled steel tanks unprotected from corrosion?
MR. SACRIPANTI: I would object, your Honor. He is saying 75 percent where gasoline would go as opposed to Exxon gasoline. The implication is it's Exxon gasoline in 75 percent of those tanks. That's the question.
THE COURT: To the extent that that objection makes some sense, can you rephrase, Mr. Sher?
MR. SHER: Yes.
THE COURT: I see the first sentence that estimates indicate that roughly 75 percent of all existing underground storage tank systems are unprotected from corrosion. You agree with that, right?
THE WITNESS: I agree with that.
THE COURT: All right. What is your next question based on that?
Q. Mr. Curran, you were aware from your familiarity with the

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oil industry at the time that Exxon gasoline would end up ultimately in, for example, unbranded distributors' tanks, correct?
A. A relatively small portion. Exxon refineries were concentrating their capacity on servicing Exxon facilities. But when they overproduced, they would sell some in the wholesale market.
Q. Sir, you were aware that Exxon gasoline containing MTBE would end up in unbranded distributors' tanks once Exxon started adding MTBE to its gasoline, isn't that right?
A. It would happen.
Q. With respect to that population, isn't it more likely that it would include a high percentage of unprotected steel-walled tanks?
MR. SACRIPANTI: Objection, your Honor. I don't think this witness is qualified to make that hypothetical.
THE COURT: I think he is based on the EPA statement, if he agrees with it. If the material was going to end up in unbranded stations, wouldn't most of the underground storage tank systems in those stations be unprotected from corrosion? That's the simple question.
THE WITNESS: It could happen. We don't know sitting here today that that was the case, but it could happen.
Q. Let me give you a different binder so that I don't have to keep troubling defense counsel for help.

THE COURT: Mr. Sher, are you going to take yourself to the podium soon? Mr. Sacripanti can't see through you. He's tried to see through you. But as clever as he is, he hasn't figured out how to do that.

MR. SACRIPANTI: I'm working on it.

THE COURT: I know. Now, there would be a good invention.

Thank you, Mr. Sher.

MR. SHER: My intention was not to block Mr. Sacripanti's view, but to keep my materials with me.

THE COURT: I know. Thank you.

BY MR. SHER:

Q. Mr. Sacripanti asked you, Mr. Curran, whether Exxon took responsibility for the release at East Meadow, New York. Do you recall that testimony?

A. Yes.

Q. They were sued, weren't they?

A. I described how big it was, 50,000 gallons.

Q. Yes, sir, it was a large release. But Exxon got sued there, didn't it?

A. Exxon got which?

Q. Sued. They were taken to court?

A. Yes, they were sued.

Q. So when you said that Exxon stepped up to that, you meant that they ended up paying a settlement in that case, didn't

you?

A. Exxon stepped up to it and paid the settlement in the case, did not fight it.

Q. There were also regulatory enforcement actions by state and federal officials in connection with that case, weren't there?

A. The local Health Department was the agency that worked with Exxon in that case.

Q. Sir, by 1990, in your experience and knowledge, weren't there more than a hundred Exxon stations in New Jersey alone in which MTBE had been detected in groundwater?

A. That's a statistic I haven't seen.

Q. You were aware that after MTBE was introduced into Exxon gasoline, it showed up in groundwater at Exxon stations?

A. I was aware that MTBE was showing up in groundwater at Exxon stations because Exxon's product before MTBE was added was being contaminated in the pipeline system and the tanks and in the barges. That was happening.

Q. It happened after your company added it to the gasoline as well, didn't it?

A. It would have to, because it was already in the system. You couldn't purge it out.

Q. Leaks and spills at Exxon gas stations continued to occur even after Exxon's tank upgrade program was completed, isn't that right?

A. I'm sure there had to be some failures along the way, but

it was not a general -- I won't agree that that's a general statement.

Q. Let's take a look at tab 8 in the binder I just handed you. This is PL323. This is a copy of a document that Mr. Sacripanti asked you about that you wrote. Do you recognize the document?

A. Yes, I do.

Q. It describes the number of tank leaks compared to the number of Exxon-owned tanks and comes up with a percentage of leaks. Do I have that right?

A. We looked at this document earlier.

Q. Yes, we did. I'm just confirming that I have my understanding of it correct. Do I?

A. That's fine.

Q. Was it right that it compares the number of tank leaks to the number of Exxon-owned tanks for various years?

A. No, it doesn't. What it compares is the number of tanks that had failed the Kent-Moore test. And further on down in the letter it describes that a failure of a Kent-Moore test, a tank tightness test, does not mean that there was a discharge.

Q. In fact, you concluded while you were still at Exxon that the Kent-Moore test was not a reliable test for tank tightness testing, didn't you?

A. It, like a lot of other test procedures -- and it can be the butcher scale in a grocery store -- is not perfect. The

EPA, in their testing of the tank tightness testing procedures by Kent-Moore and others, found that there was a 95 percent probability that it would claim there was a leak when there was no leak, and then there is also a probability that it would say there was no leak and there was a leak. So it's like any test procedure. They are not absolutely perfect.

Q. But this particular test procedure was found to be one of the poorer test methods and was not able to achieve the EPA's 0.1 gallons per hour test criterion, isn't that right?

A. I'm not aware of that, because it's being used today and it meets the EPA regulations.

Q. Sir, do you recall that your deposition was taken in 2000?

THE COURT: You know what a deposition is, right? A pretrial under-oath questioning. Do you remember that, sir, back in 2000? A bunch of lawyers in the room? Mr. Curran?

MR. SHER: She is asking you, Mr. Curran.

THE COURT: Do you remember that, the deposition?

THE WITNESS: I don't remember. I've had several depositions.

THE COURT: But you remember being deposed, yes?

THE WITNESS: Yes.

Q. I direct your attention to page 65 of that deposition. You were under oath at that deposition, isn't that right, just as you are today?

A. OK, yes, I was.

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Q. You were asked on page 64, the previous question, "How is it that a tank could test tight but it turns out when further testing was done the gasoline involved was identified as Exxon's?"

You state, starting on line 21, "And the Kent-Moore test, although at the time was believed to be a dependable test" --

MR. SACRIPANTI: Your Honor, for completeness, may I ask that the entire answer be read, please?

MR. SHER: I'm happy to read the entire answer.

THE COURT: Fine. Can you start again, though. You were interrupted in the middle of the question.

MR. SHER: Thank you, your Honor.

Q. "How is it a tank could test tight but it turns out when further testing was done the gasoline involved was identified as Exxon's?

"A. This was in 1980 that the well was contaminated. And this report doesn't say how the tanks were tested to determine if they were tight. But if they were using the most credible test method available at that time, it would have been the Kent-Moore test, what was known as the Kent-Moore test, which is a pressure test.

"And the Kent-Moore test, although at the time was believed to be a dependable test method and could detect a leak up to .05 gallons per hour, was later proven during the EPA

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round-robin testing of all available test methods at Edison, New Jersey, by an outside contractor that it could not nor could almost any other test method available test to that degree of leakage. And as a result, the EPA changed the leakage criteria, test rate criteria, to 0.10 gallons per hour. But this particular test method was found to be one of the poorer test methods and could not achieve a 0.10 gallons per hour test criteria."

MR. SHER: Do you want me to keep reading?

Q. "And also it was found that the false positive criteria that was established by EPA was not being met. So the bottom line is that in 1980, although we believed we had the best test method that was available, we found later, some ten years later, that the test method that we were using and the industry was using was, first of all, relatively undependable and, secondly, couldn't detect as small a leak as we thought it could. So it could conceivably test tight but later in observation showed where there was a gasoline leak."

Do you agree with that testimony today?

A. My memory was better in the year 2000 than it is in the year 2009. I will have to say that what I stated here is probably accurate. And I have to say that the bottom line is that in 1980, although we believed we had the best test method, we found ten years later it wasn't the best method.

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Q. Let's return to Pl.323. Your testimony was that the number of tank leaks listed is actually the number that failed the Kent Moore test. Is that right?

A. That's correct.

Q. And so we don't know whether those tanks were leaking or not, correct?

A. That is a flat statement that I can't agree with. I did not in the Year 2000 say that the test method didn't tell you whether the tank leaked or not. I told you that it wasn't infallible, it was less accurate than we thought it was. That doesn't say that it wasn't working.

Q. My question is about your document in 1986. By the way, by 1986 did your company know that the Kent Moore method was unreliable?

A. I don't recall.

Q. In any event, what this document reflects are the numbers of failures of the Kent Moore test as distinguished from actual no leaks. Am I right about that?

A. Yes, that's correct.

Q. And because we now know that the Kent Moore test was unreliable, we don't know how many of the ones of the tanks that passed the Kent Moore test were actually leaking. Isn't that right?

A. We don't know exactly how many weren't or were leaking, that's correct.

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Q. Let me ask you about a page in this document that is Bates numbered ending in 78. Take us there.

Now, I notice that the column with the numbers of tank leaks has the same numbers we were just looking at on the table with the first page at the top. These would be the number of tanks that failed the Kent Moore test, correct?

A. Yes.

Q. What does NA mean in the column tested for leaks?

A. "Not available."

Q. We don't know how many tanks were tested for leaks in those two years. Is that right?

A. Exxon had over 300 field engineers, had over 12,000 well facilities, over approximately 50,000 underground storage tanks, and we did not and we were at that time learning how to gather this kind of data. We didn't have it.

Q. For those two years you didn't have the data about the number of tanks that were actually tested compared to the number that showed that they had failed the Kent Moore test, correct?

A. That's correct.

Q. In the years 1984, 1985, you tested 891 tanks -- let's take 1984 first. In 1984 out of the 25,300 tanks then owned by Exxon, you tested 891, and 235 of them failed the Kent Moore test, correct?

A. Correct.

Q. So of the number of tanks that you tested, 26 percent failed the Kent Moore test. Is that right? I am looking at the last column.
A. Yes, I understand. Yeah, that was the number of tanks that had failed the test, that's right.
Q. So one in four of the tanks that you tested that year failed the test, correct?
A. Correct.
Q. At the time that was your best indicator of whether a tank was a potential leaker, correct, the Kent Moore test?
A. Of the tanks that were tested, is that the way your question is?
Q. Yes.
A. Of the tanks that were tested, that was the best indicator we had.
Q. In 1985 you tested 948 tanks out of the 23,100 then owned by Exxon and found 240 of them failed the Kent Moore test, correct?
A. Correct.
Q. Again about 25 percent, correct?
A. Well, I think the number is -- yes, okay.
Q. I am looking at the 25 in the right-hand column.
A. That's correct.
Q. Now, Kent Moore testing was actually the second step in your leak detection program, wasn't it?

A. Yes, it was.
Q. And inventory reconciliation was the first line of defense in detecting leaks, correct?
A. Inventory reconciliation, there was some other indication there was something wrong.
Q. At the time you wouldn't even trigger tank testing unless the inventory variation exceeded one half of 1 percent of the thruput per month at a station, correct?
A. No, that isn't correct.
Q. I am looking at the first sentence highlighted under this table. It says Exxon's leak detection program relies mainly on mandatory daily, weekly and monthly operator inventory reconciliation for early leak detection. Tank testing is triggered whenever the variation exceeds one half of one percent of the thruput per month.
Do you disagree with that statement?
A. You're taking it out of context. There are other reasons that we would test tanks other than inventory verification.
Q. For example, if the product showed up in a nearby well, correct?
MR. SACRIPANTI: Objection, your Honor. That is argumentative.
A. No, there are other indications.
THE COURT: One moment, please. The objection is actually sustained. Mr. Sacripanti. Would you rephrase your question.
BY MR. SHER:
Q. Mr. Curran, in your experience, weren't there undetected releases that wouldn't be found until they were discovered on an adjoining property?
A. Early on there were occasions when gasoline fumes or some other reason triggered concern that the gasoline was coming from somewhere, and it would be traced back to determine where was it coming from, and it could come from a lot of areas. Of course, an adjacent service station was one of the prime targets.
Q. With respect to the addition of MTBE to gasoline at Exxon in 1985, didn't that increase the risk that a release from a station that contained that gasoline would affect a neighboring property?
A. How do you define, "affect a neighboring property"?
Q. Well, you could take it as reaching a nearby groundwater well. Wouldn't that increase the odds of that happening if MTBE is used in the gasoline?
A. I was looking for something a little bit more, of more concern, and that is was a toxic material reaching the groundwater that we should be concerned about.
Q. Sir, others in this courtroom will debate the toxicity of MTBE. My question to you is:
Didn't the addition of MTBE to gasoline at Exxon in

1985 increase the risk that a release from an underground storage tank system that contained that gasoline would reach a neighboring property as compared to gasoline that did not contain MTBE?
A. I can't agree with that statement. I'll tell you why.
Q. I would be interested to hear.
A. The why is that MTBE was already in the distribution system. It had been used by virtually every other oil company and they all used the same distribution system.
They all used common carrier tank trucks, they all used the pipelines, they all used barges, they all used terminals, and it was -- MTBE was in the system and you couldn't purge it out. So by Exxon incrementally adding to it wasn't going to change the ultimate, and that is MTBE was in the system.
Q. So gasoline from other companies could reach Exxon stations because it was all comingled in this distribution system that you just described. Is that right?
A. A lot of Exxon gasoline is comingled. Exxon was one of the last companies to ship on major pipelines proprietary slugs of product. Even a proprietary Exxon shipment in a pipeline would pick up MTBE from the previous shipments of gasoline. It was unavoidable.
Q. With respect to unsegregated shipments in the pipelines, Exxon stations could contain gasoline from other companies that

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contained MTBE even before Exxon was adding it to is own gasoline, correct?
A. That's correct. There were service stations where we were picking up contamination with MTBE and it was before we started, Exxon started to use MTBE as an additive.
Q. Once Exxon started adding MTBE to its own gasoline in 1985, that gasoline could end up in other peoples' gas stations, correct?
A. It was in the system and at this point who knew where it originated. It was in the system. It was in the total distribution system.
Q. So your point about not -- excuse me. Let me start the question over again.
Your point that there was not an incremental environmental risk from adding MTBE to Exxon gasoline was based on your view that MTBE was already in the system, correct?
A. That's correct.
Q. Setting that aside, sir, comparing gasoline with MTBE to gasoline without MTBE, the gasoline with MTBE poses an incremental environmental risk. Isn't that right?
MR. SACRIPANTI: I assume we are talking about during his tenure with Exxon and not today?
MR. SHER: I am. That is right.
MR. SACRIPANTI: Up until 1992 I guess is your question?

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A. Well, I don't agree with that. So we differ on that.
BY MR. SHER:
Q. Which department were you in in 1984-1985?
A. I was in the marketing department, what they call the marketing department.
Q. You were working at that point for Mr. Larkins. Is that right?
A. At one time I worked for Mr. Larkins.
Q. During 1984-'85?
A. No, not '84-'85. I worked for him previously, previous to that time.
Q. Let's go to Tab 7 in our binders, P L2 21. This is a June 22nd, 1982 Exxon document.
THE COURT: Which tab?
MR. SHER: Tab 7, your Honor.
THE COURT: 7? Thank you.
BY MR. SHER:
Q. If you look at the authors down at the bottom of the page -- no, no, the highlighted one -- you were one of the writers of this document, were you, Mr. Curran?
A. Yes, I was.
Q. In the first paragraph you stated recognizing that inventory verification is the best available method to detect underground leaks in an ongoing manner, it is extremely important that this program be fully carried out for all stores

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each year.
You wrote that then?
A. I was part of writing the letter. I can't remember who wrote what, but I'll agree with that.
Q. The next paragraph states, a recent concern has been a substantial increase in the number of leaks caused by failures of new tank and piping installations. The attachment provides a summary of recent incident reports for your region which relate to tankage leaks. It has been noted on the region attachments where failures have occurred in new installations.
Sir, did you each year, did you provide reports to the regions about the sources of their leaks at the gas stations?
A. Not each year, at least I don't recall doing it each year, but I can tell you that in 1982 we were watching region activities very closely and we were obtaining information that we had not obtained before.
Q. If you could turn to the next page of the document, please.
This is 1982 is four years after the East Meadow incident. Am I right?
A. Yes.
Q. If you look at the third entry on this page, you see a station in New Jersey had a product loss of 1,180 gallons due to corrosion failure, correct?
A. I see that.
Q. So as of 1982, Exxon did not correct it at all of its

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stations releases from this underground storage tank systems, correct?
A. That is why we knew it was going to take five years and knew it was going to take $170 million, that's correct.
Q. Let's go down the page a little bit to the box highlighted on the right side. This was a report of a New Jersey new installation where there had been a crack in the fiberglass tanks, correct?
A. Correct.
Q. In fact, it was a fairly common occurrence for Exxon to experience releases from new installations of its fiberglass equipment. Isn't that right?
A. You're incorrect.
Q. It was a rare occurrence?
A. It was a rare occurrence. We did a study, and we had three failures over a period of several years.
Q. Well, Liz, if you could highlight the lines that start with 7181 and 6013. These are two releases of new installations in 1982 in New Jersey, right?
A. Yes. The notice at the top of the tank says no release.
Q. Sir, there were two problems with new installations simply reflected on this page, correct?
A. On this page there are two problems identified.
Q. Go to the next page. There are one, two, three, four, five new installations listed there. Go ahead and enlarge that

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piping leak section if you would, please.
If you look at the first one, that was in New York, the report date of September 8th, 1981, new system, thousand gallons of product loss. Am I right?
A. I see that.
Q. That is the new system because of faulty installation, correct?
A. I think you've identified three of them where there is a product release.
Q. Yes, and there are actually four more listed on the same page. Just keep going down. Each of those boxes listed as new shows product release from new installations?
A. I am still looking. I can find three. I do remember the study that we did, we found three.
Q. Well, if you look at the next page, the entry, the fourth from the bottom, new installation in DC, 7,000 gallon release related to new installation. Do you see that?
A. I see that. That is one of the three.
Q. Isn't it one of about 7 that we have just been talking about?
A. I am still looking. I found three where we have had a product release as a result of fiberglass tank failure. What am I missing?
Q. Well, sir, whether it was from the tanks or the pipes?
A. You're including the piping now?

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Q. Didn't you agree with me earlier that the pipes were also sources of releases from the stores?
A. I agreed, yes, pipes can leak just like a tank can leak.
Q. So you have, if we include pipes, do we end our disagreement?
A. I am glad you didn't change what I remember as a study where we found three tanks that had failed and caused a release.
Q. Was it only three tanks that had failed or three tanks that had failed upon installation that you recall?
A. That is one of the beauties of a fiberglass tank is if it is going to fail, it will fail because of improper installation and you can catch the release right away and correct it before it migrates into the ground or into the groundwater. That is one of the beauties of both fiberglass tank or piping.
Q. Is it your testimony that during the period you were at Exxon, that is, up until 1992, there were not releases from underground storage tanks or pipes made of fiberglass other than upon installation?
A. What I recall is that we had very few. We should factor into this discussion that there were 5,000 tanks installed a year, and now we're looking at three where there was an installation problem and we had a release.
So, you know, there are not many manufacturers, there is not many companies that are perfect, but they all do the

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best they can and try to minimize any impact on the environment or the public.
THE COURT: Okay. We'll pause here for the afternoon break and try to reconvene at 20 of 4:00. Is there a hope we can finish with him?
MR. SHER: Yes.
THE COURT: Let's really try hard at 20 of 4:00. Thank you.
(Jury excused)
(Recess)
THE COURT: All right, get the jury, John, yes.
(Jury present)
THE COURT: Please be seated.
BY MR. SHER:
Q. Mr. Curran, you told Mr. Sacripanti that the inventory reconciliation goal for leak detection purposes for Exxon for the API was a half a percent of the thruput per month, correct?
A. Correct.
Q. The EPA adopted a higher number for its variance to trigger leak detection, correct?
A. They did.
Q. And they've assumed the variance could be as high as 1 percent plus 130 gallons per month, correct?
A. That's correct.
Q. So an operator at a non-Exxon station who was not complying

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with the API standards but was complying with the EPA standards wouldn't suspect a leak or test for it unless the variation showed up as greater than 1 percent thruput plus 130 gallons per month, right?
A. That could happen.
Q. Are you familiar with the term "keeper station" in Exxon nomenclature?
A. Yes, I am.
Q. That is associated with stations, as Exxon was upgrading its systems, that it intended to keep in the system, correct?
A. Correct.
Q. Do you know what the thruput for a station to be considered a keeper was?
A. I don't recall it being a fixed number. It was more of a projection as to what would happen to the station down the road, rule changes or something else, but I don't remember a fixed number.
Q. For stations that were not keepers, Exxon considered divesting them; that is, selling them off, correct?
A. They were either going to close them and abandon the site or they were going to sell them.
Q. In your experience, were there stations that Exxon had that were keepers that sold gasoline on the order of 500,000 gallons a month?
A. I'm aware of some stations that were selling that much

gasoline per month, yes.
Q. So I want to apply the inventory standards.
So if we have a station that is selling 500,000 gallons per month, then under Exxon's inventory reconciliation standards, there could be a variation of up to 2500 gallons per month before further investigation was triggered, correct?
A. That's a simple way of looking at it, but go ahead.
Q. That is what the math is, right?
If you apply the half a percent to the monthly thruput, and the monthly thruput is 500,000 gallons a month, then 2500 gallons per month or less variation doesn't trigger further investigation, right?
A. Okay, so you're talking about one product one tank. Is that correct?
Q. Is that how it was tested?
A. No. The 500,000 gallons applied to all three grades of gasoline that were being sold at the station.
Q. So it could be three tanks, right, or more?
A. So there could be three or more tanks, but all tanks together were selling 500,000 gallons per month.
Q. That is fine. Are we agreed on that?
A. Okay.
Q. If it was the EPA figure, it would be 1 percent, which is 5,000 gallons plus 130 gallons, so you'd end up with a variance of 5,130 gallons for the station, right, for all the tanks at

the station under this methodology before there would even be a further investigation to see if there was something wrong with the tanks or pipes or whatever?
MR. SACRIPANTI: These are non-Exxon storage tanks, your Honor, is that the question?
BY MR. SHER:
Q. The math is the math. If you're applying the EPA regulation instead of Exxon standards, you could have a variation of 5,130 gallons before further investigation was even triggered?
THE COURT: Are you talking about an Exxon station or Exxon tanks or any station?
MR. SHER: Any station.
THE COURT: Okay.
THE WITNESS: There is still a fallacy in the way you're approaching this.
THE COURT: Wait. Sorry, Mr. Sher. What is the fallacy?
THE WITNESS: The fallacy is he is taking the percentage of all the gasoline sold at the station, whereas the system was that you take the percentage of each individual grade of gasoline that was sold at the station. So you don't have 500,000 times 1 percent, you would have a fraction of that that is being -- you are doing each grade of gasoline separately. There is a reason for that.

BY MR. SHER:
Q. Let's assume that you have 450,000 gallons thruput at the station per month.
A. Okay.
THE COURT: For all the tanks?
BY MR. SHER:
Q. All the tanks and all grades?
A. Okay.
THE COURT: Okay.
BY MR. SHER:
Q. During the 1980's was there a typical distribution, in your experience? Was it mostly, regular unleaded or premium unleaded?
A. It is mostly regular unleaded, so why don't you assume 250,000 gallons or some easy number is regular grade gasoline.
Q. Okay, let's assume that. Then it would be all the tanks that had regular grade unleaded?
A. That's right, it would be all the tanks and it is one grade of gasoline, that's right.
Q. Under Exxon's .5 percent, then that would be 1,250 gallons would be your -- what is the term for it, normal loss?
A. No, that is not the term at all. It would be a variation. It could be 1500 gallons shortage or 1500 gallons -- or 1250 shortage or 1250 gallons overage, one or the other, so it is a variation.

Q. In any event, if what you were detecting was a leak, you wouldn't even test for it further unless you had a variation of more than 1,250 gallons per month under the API Exxon standard, correct?
A. Okay, there is one other step that you're missing.
Q. All right. What is that?
A. That step is you have two other grades of gasoline, and the other two grades of gasoline, if they are showing the same pattern of, let's say, an overage which could indicate a discharge, a leak, if they were showing the same pattern, then this would trigger an investigation.
I am sorry. This would not, this would not trigger an investigation because what it is showing is that -- and this could happen during a very hot July day -- that the gasoline was being heated and it was expanding, and so your overage is an expansion of the gasoline. That is if all three grades were showing the same pattern.
Q. Okay. That assumes there aren't also leaks in the other parts of the system, correct?
A. Yeah, that's right, that's correct.
Q. So continuing on, if you were to apply EPA's standard to the 250,000 gallons thruput for the regular unleaded, then you would have 1 percent, which is 2500 gallons plus 130 gallons and you wouldn't check further unless you had a variation greater than 2,630 gallons per month for that, for that system,

correct?
A. Now you're looking at one tank and one grade of gasoline.
Q. We are looking at one grade, that's right. It could be more than one tank, though?
A. You should be looking at all three grades.
Q. All right.
A. If you want to make the assumption that all three grades are doing the same thing, then if it is an overage, you know you have a temporary problem. If it is an underage, it is again a temporary problem. If you have one tank showing this and the others are showing what you would expect them to show; in other words, very small variation, then you would know you have a problem with that particular product.
Q. Regardless, you don't check unless you have a variation given your assumptions who is --
MR. SACRIPANTI: Who is "we"?
BY MR. SHER:
Q. I said you?
MR. SACRIPANTI: Meaning who?
BY MR. SHER:
Q. Exxon wouldn't check applying its standards and others who were following the EPA standards wouldn't check theirs unless there were variations in the inventory of at least these amounts, correct?
MR. SACRIPANTI: Again this is compound. Can we just

take one at a time?
THE COURT: Would Exxon check if the variation was not greater than this?
THE WITNESS: Yes. There is a simple reason, and that is 1250 gallons times $3.00 per gallon or $2.00 per gallon, whatever number you want to use is a significant amount of money that the operator of that station has just lost. He is going to inspect it. He is going to find out what is wrong.
BY MR. SHER:
Q. Let's go back to Tab 15 in your binder. Go to Bates number ending in 76, please, sir.
This was a document that while you were at Exxon was provided to dealers with suggestions for how to deal with their leak detection program, correct?
A. Correct.
Q. And in this document -- go to page ending in 83 -- if you could enlarge, please, the first paragraph.
What Exxon was advising was that where inventory verification reveals a variation of more than 0.5 percent between the total metered sales during the period and actual physical inventory measurements, steps are taken to determine the cause. That is what was written in the document at the time you were with Exxon, correct?
A. And steps are taken to determine the cause.
Q. Right. You don't take steps to determine the cause unless

you have a variation greater than that amount, correct?
A. No, it doesn't say that.
THE COURT: It does. Where inventory verification reveals a variation of more than half percent?
THE WITNESS: More than half percent.
THE COURT: Right, then it says then steps are taken.
THE WITNESS: Then steps are taken to determine the cause.
THE COURT: Right. He is saying the whole sentence says where it is more than half a percent, then steps are taken, right?
THE WITNESS: Well, this is, this is a simplistic way of looking at it. During the training program, the dealers were told to take a look at all three products.
BY MR. SHER:
Q. This is what is written in the document you distributed, right?
A. It is, but there is also a training program.
Q. Let's go to page, the Bates number ending in 87, if you could highlight the first paragraph again. The first paragraph states:
When inventory variations of over 0.5 percent cannot be explained by delivery shortages, pump tampering, out of calibration meters or leaks elsewhere in the fuel delivery system, the tanks and pipes system are inspected and tested for

leaks by technical personnel.
So the sequence is first you have the variance in inventory, then you look for other potential causes, then you check for leaks. Isn't that right?
A. Yes.
Q. That is what Exxon was advising its dealers who received this document, correct?
A. And it says that a maintenance representative or an engineer conducts an on-site investigation to determine the cause of the inventory variation.
What that says is that there can be other reasons for the variation other than a tank leak. I mentioned them. There is temperature variations, there is mathematical errors, there is a number of things that can happen that have to be investigated before you call in a tank tightness test, and most of the time you find that there is something wrong with the way it was calculated or you've had temperature variations.
Q. Mr. Curran, isn't it fair to say that inventory reconciliation was not an adequate method to detect small continuous leaks?
A. No, it isn't because --
Q. Inventory reconciliation --
THE COURT: Let him finish.
A. -- I can remember the radiance study done by a firm out of the research triangle, and after working through computer

programs to look at all the possibilities, they came to the conclusion that inventory verification would detect a leak, and I don't remember the exact number, it was in the high 90's percentage of cases.

BY MR. SHER:

Q. Yes, sir. Was it adequate to detect small, continuous, ongoing releases that values lower than the variance, whether it was the half a percent thruput that Exxon used or the 1 percent plus 130 gallons the EPA used?

A. You're suggesting that there is a breach in the system that is causing a leak, and that breach in the system is going to be constant forever; so, therefore, no one is going to notice it.

Q. You're familiar with tanks and pipes and dispensers and fill spills and overfills that could occur on an ongoing basis that at lower volumes than on the order we have been talking about?

A. I think you changed the question.

THE COURT: No. He is saying you're familiar with small releases?

THE WITNESS: Small releases.

THE COURT: You're familiar?

THE WITNESS: I am familiar that accidents will occur.

MR. SHER: Your Honor, I have no further questions of this witness.

THE COURT: Okay.

MR. SACRIPANTI: Just a few questions.

THE COURT: Okay.

REDIRECT EXAMINATION

BY MR. SACRIPANTI:

Q. Mr. Curran, how are you feeling right now?

A. I am feeling just fine.

Q. Okay. You asked to go on in the morning because you got tired in the afternoon. Is that right?

A. That's right.

Q. Are you holding up?

A. I'm holding up.

Q. Okay.

You were asked -- if we can turn to Tab 12, please --

MR. SHER: Which volume?

MR. SACRIPANTI: Sorry, of defendant's, my Binder 12.

Dave, if we could advance to 478, please. If you could blow up the first paragraph quickly.

BY MR. SACRIPANTI:

Q. You were asked questions about this chart, as to the tanks that were actually tested in '82. Please go to '84, 25,300 tanks. Were the universe of 235 tanks identified because there was some other problem that indicated there might be a release at those tanks?

A. No. These are tanks that failed the Kent Moore test, the tightness test, and what we learned was -- and I mentioned this earlier, but I'll repeat it -- what we learned is that the older tanks that when they installed the underground venting system, they did not believe it had to be tight. The pipes were all loose-fitting. The Kent Moore test tests all the pipes in the system, tests the vent pipes, they test everything that is underground.

We found that a lot of the older tanks and piping systems, the pipes are loose and no product ever got into the vent line, so there is no discharge.

Q. You selected the 235 tanks because there was an inventory or some other indication there might be a problem?

A. That's right, that is how the ball started rolling. When you saw it, you thought you had a problem with inventory verification or some other method, then you called in the engineers, you called in the experts. They went through the inventory records, they walked the site, they tried to find out if the meters were incorrect.

There were a lot of things because that cause a variation. When they couldn't find anything, they called in a tank test.

Q. Out of that universe of 235 in 1984 and 240 in 1985, you found 26 tanks that failed the tank tightness test in '84 and 25 that failed in '85, correct?

A. That's correct.

MR. SHER: Your Honor, it mischaracterizes the

document. It is percentage, not numbers of tanks in the last column.

MR. SACRIPANTI: You know what? Mr. Sher is right. I did do that. I did it inadvertently.

BY MR. SACRIPANTI:

Q. The percentage was 26 percent in -- thank you -- in 1984 of the universe that indicated it had a problem. Is that right?

A. Yes, yes.

Q. And in 1985, it was 25 percent of the universe that indicated it had a problem in 1985?

A. Correct.

Q. You were asked about the East Meadow spill. Did Exxon take responsibility for the spill, the cleanup of the spill before the lawsuit started?

A. Exxon knew from day one that there was a problem that they were going to have to resolve and that included cleaning it up.

The question was how do you clean up such a large spill? Exxon had never had that experience before and they had to use a new technology, and that was called air venting. They actually vented the air and disposed of the gasoline vapors rather than try to recover the gasoline that was underground, and they bought out all the homes from the homeowners at the appraised price before the spill occurred.

Q. Not before the spill occurred?

A. But before the --