BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

VOLUME II

IN THE MATTER OF:)
)
EMISSIONS REDUCTION MARKET) R97-13
SYSTEM ADOPTION OF 35 ILL.) (RULEMAKING)
ADM. CODE 205 AND AMENDMENTS)
TO 35 ILL. ADM. CODE 106.)

The following is the continued transcript of a rulemaking hearing held in the above-entitled matter, taken stenographically by LORI ANN ASAUSKAS, CSR, RPR, a notary public within and for the County of Cook and State of Illinois, before Chuck Feinen, Hearing Officer, at 100 West Randolph Street, Room 9-040, Chicago, Illinois, on the 22nd day of January, 1997, A.D., commencing at the hour of 9:00 o'clock a.m.

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A P P E A R A N C E S :

HEARING TAKEN BEFORE:

ILLINOIS POLLUTION CONTROL BOARD,
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601
(312) 814-4925
BY: MR. CHUCK FEINEN,
HEARING OFFICER.

ILLINOIS POLLUTION CONTROL BOARD MEMBERS PRESENT:

Ms. Elizabeth Ann
Mr. Kevin Desharnais
Ms. Kathleen Hennessey
Mr. Richard McGill
Ms. Marili McFawn
Mr. Anad Rao
Mr. Hiten Soni
Mr. Joseph Yi

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY MEMBERS PRESENT:

Ms. Bonnie Sawyer
Mr. Richard Forbes
Mr. Bharat Mathur

OTHER AUDIENCE MEMBERS WERE PRESENT AT THE HEARING, BUT NOT LISTED ON THIS APPEARANCE PAGE.

I N D E X

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E X H I B I T S

THE HEARING OFFICER: Good morning. My name is Chuck Feinen. I'm the assigned hearing officer to this matter, R97-13, Emissions Reduction Market System.

With me, today from the board is Board Member Marili McFawn. To my left is Joseph Yi, to my right is Kathleen Hennessy, to my right is Elizabeth Ann.

We will continue the hearing from yesterday on the record to start at 9:00 o'clock this morning. It's about 9:15 now when we are going to start the proceedings.

Please speak up so the court reporter can hear you. Please state your name before you ask your question, and ask your question loudly enough so everyone can hear it.

With that, I think we will turn it over to the agency.

MS. SAWYER: Good morning. I am Bonnie Sawyer, assistant counsel with the Illinois Environmental Protection Agency.

I just want to give a little overview of what we are planning to do today. We are going to begin testimony with Joe Goffman from the

Environmental Defense Fund.

That will be followed by Roger Kanerva from the Illinois EPA. Mr. Kanerva will be providing an overview of the proposed rule. Mr. Kanerva will be testifying again at a later point to provide more detailed testimony on a certain component of the rule. Additionally, Mr. Kanerva's testimony will be followed by more detailed testimony on the various components of the rule. So some of the questions that may be asked of Mr. Kanerva should be postponed to the more detailed testimony.

After that, we will begin the more detailed testimony with Christopher Romaine testifying and we will see how far we get.

Hopefully, we can also present testimony from Donald Sutton and David Kolaz from the Illinois EPA.

With that short introduction, we are ready to begin our testimony. I would like to call our first witness Joseph Goffman.

THE HEARING OFFICER: Before we start --

MS. SAWYER: Oh, I'm sorry.

THE HEARING OFFICER: Let's go off the record for a second.

(Whereupon, a discussion was had off the record.)

THE HEARING OFFICER: Let's go back on the record again for Bonnie to explain what's going to happen pursuant to the outline that they have passed out.

MS. SAWYER: Can I see that? Thank you.

THE HEARING OFFICER: Sure. I need it back, though.

MS. SAWYER: I'll just start with going through what we have covered and what we intend to cover.

If you go to Roman numeral one of the outline, we presented that and we presented testimony on Roman numeral two also.

MR. TREPANIER: Excuse me. Could you mention the witness list?

MS. SAWYER: Okay. Sure. For Roman numeral one, it was David Kee from U.S. EPA.

For Roman numeral two, it was Bharat Mathur and Richard Forbes from the Illinois EPA.

If you go to Roman numeral three, we presented testimony on Roman numeral 3(b) and that was Philip O'Connor.

Today, we are going to begin with testimony in the outline as 3(a) and that will be Joseph Goffman.

Roman numeral 3(c) is Commonwealth Edison's SO2 experience. We are not able to present that testimony because their acid rain expert was at a conference in Phoenix for the 21st and 22nd. So we will probably present that testimony on the 3rd or 4th.

Then, if you go down to Roman numeral four, we are going to present that entire section. That will be Roger Kanerva.

Then, we are going to begin on Roman numeral 6(a), (b), (c) and (d) if we get there. We are just going to proceed down that line. That is Christopher Romaine, as indicated in the outline.

MR. TREPANIER: I understand you are presenting testimony in the entirety of what is Roman numeral three?

MS. SAWYER: Yes. Three? No. Roman numeral three, we are presenting -- we have already presented (b) and we are presenting (a). Now, (c), we can't present at this time because Commonwealth Edison's SO2 expert is at a conference in Arizona.

MR. TREPANIER: The witness on 3(b) is the witness that will be available for questioning?

MS. SAWYER: Yes. If there are additional questions, the one we were going to call up, Philip O'Connor. He was the last person to testify yesterday.

MR. TREPANIER: Thank you.

THE HEARING OFFICER: Okay.

MS. SAWYER: If there is nothing further, I would like to call Joe Goffman as the agency's next witness.

THE HEARING OFFICER: Would the witness be sworn?

(Witness sworn.)

WHEREUPON:

J O S E P H G O F F M A N ,

called as a witness herein, having been first duly sworn, deposeth and saith as follows:

MS. SAWYER: I have just one quick matter.

Mr. Goffman has some overheads, most of which are essentially bullet points of what he is going to discuss. There are some charts. We wanted to mark these as exhibits. We can now go through them. It's probably helpful to mark those exhibits

now.

THE HEARING OFFICER: There are -- I guess there's going to be four charts along with --

MS. SAWYER: More than four.

THE HEARING OFFICER: More than four?

MS. SAWYER: Yes. There are seven.

THE HEARING OFFICER: There are going to be seven.

MS. SAWYER: This is going to be followed by this one.

THE HEARING OFFICER: There are seven overheads that the agency wants me to mark as exhibits. I will mark them as exhibits.

After the presentation of the testimony, the agency can move to have those exhibits entered into the record and we'll handle the objections at that point.

(Documents marked as Hearing Exhibit Nos. 24-30 for identification, 1/22/97.)

THE HEARING OFFICER: I believe we left off with Exhibit No. 24 from yesterday. I'm marking as Exhibit No. 24 a chart called "SO2 Emissions from

the Largest Sources." I am marking as Exhibit No. 25 a document called "Regional Emissions Trades." I'm marking as Exhibit 26 "Macro Economic Impacts." I'm marking as Exhibit No. 27 "Cost Changes if Trading is Restricted." I'm marking as Exhibit No. 28, "Savings through Trading."

MR. TREPANIER: Which page number is that?

THE HEARING OFFICER: That would be Page 18 on the handouts that the agency passed out prior to today's hearing.

MR. TREPANIER: Thank you.

THE HEARING OFFICER: I'm marking as Exhibit No. 29, which is Page 26 of their handout, a 1994 option results. I'm marking as Exhibit No. 30 the SO2 allowance values, which is Page 27.

MR. TREPANIER: Could those be referred to by page number when they are brought up?

MR. GOFFMAN: Thank you very much.

My name is Joseph Goffman. I'm a senior attorney with the Environmental Defense Fund. My background for this presentation includes experience working with the staff of the environmental -- Illinois Environmental Protection Agency and thinking through when designing the essential elements of the

program that's being presented here today.

However, what I think would be helpful would be to review some of the fundamental background of the approach that's embodied in the VOM trading program without necessarily going into the specific details.

I, or a colleague of mine who is also on the design team, will be available to testify on February 3rd or February 4th about some of the specific issues.

But if it's okay, I would like to focus today on discussion of the fundamentals, if you will, of the kind of policy reform that this program represents.

In many ways, what the agency is proposing represents a sort of state of the art example or an expert of sort of state of the art thinking in reforming and ultimately improving the environmental performance of air pollution control programs.

As I'm sure you know, the U.S. has made a major commitment to regulating and reducing a wide range of air pollutants since the enactment of the 1970 Clean Air Act, which was amended in 1977, and

amended again in 1990.

So as a society, we have more than a generation's worth of experience in using different kinds of policy tools to control and manage and reduce a wide range of pollutants that are hazardous either to human health or the natural environment.

Starting in 1970, and in many ways persisting through the present, the major paradigm that has been used to manage air pollution through the public policy tools can be described or labeled command and control.

Command and control regulation is characterized by programs that impose emission rate standards or technology standards and often in their implementation require public bureaucracies to make a lot of detailed decisions about the compliance requirements of individual sources.

Sources given to typical matters have relatively little choice as to how they are going to meet their compliance requirements. Ultimately, it's left to the public bureaucratic decision-making process to figure out on sort of a sector-wide or class-wide basis what the most effective technologies are, what the most effective innovations are, and

the best way to distribute cost.

From an environmental perspective, one of the major flaws of that approach is that most of those kind of programs are unable to guarantee to the public a specific environmental or emissions control outcome.

Individual sources are held accountable for putting on certain technologies, but nobody is held accountable for achieving the actual emissions reductions target.

In many respects we have seen programs of great promise ultimately failed to deliver environmental results because you have a whole class of sources in compliance with your technology requirements, but for various reasons, the technology requirements fail to deliver the results that are required or promised to the public or expected by the public.

At the same time, typical command and control programs have a very mixed record in terms of delivering innovation, delivering new ideas, and allowing those new ideas to penetrate society or penetrate the marketplace to enhance environmental performance.

As a society, we have discovered that the challenges of environmental protection involve ever increasing difficulty and ever increasing levels of effort to really deliver things that the public wants such as healthful air and protection of natural resources.

In order to make those goals reachable, it requires almost continuous innovation technologically and through reform of practices involving air pollution control.

So what is absolutely key to the environmental outcomes we want is that a stream -- a steady stream of innovation can be marshaled by the private sector and command and control regulations have typically not succeeded in doing that very well.

On the business side, whenever you have -- or I should say when you tend to have basic decisions of the allocation of costs and performance of technology not made by the businesses themselves, but by more bureaucratic processes, those decisions tend to fail to reflect the economic information and the economic needs of the individual companies.

It's just harder for businesses to

respond both to their compliance requirements and to the general economic needs they have to face in doing business.

If fundamental questions such as technology of choice and cost allocation are not left up to them, but are left up to a more collectivized or bureaucratic cost allocation for technology selection process, that means from an environmental perspective, the extra cost, the extra rigidity of these programs tends to make these programs less durable, less able to produce the outcomes that we as environmentalist want over time.

Hence, almost from the beginning of the history of the modern Clean Air Act, public policymakers have looked for ways to at least introduce some forms of flexibility in the way these programs operate.

So as early as the mid-70s, around the time that the Clean Air Act was being amended for the time, concepts such as emissions bubbling and emissions emitting were introduced as sort of forerunners in emissions trading to try to give businesses some flexibility in choosing technology and allocating costs.

As you will see from this slide, which gives you a more detailed summary of what I just said, unfortunately, one of the favorite ways of seeking flexibility or obtaining flexibility that business is sought and one of the most used ways of granting flexibility that public regulators use was to allow individual businesses to negotiate delays in variances in their compliance requirements.

Delays in variances, which while they may have satisfied the individual firm's need for flexibility or cost savings, inevitably resulted in more emissions or delayed emission reductions.

Hence, the search for policy tools that took the form of full-blown economic instruments that in some fundamental way reallocated the decision-making authority as between public bureaucracies and businesses as to what choices of technology and what allocation of cost should be made and what the ultimate accountability of businesses are and were.

One of the economic instruments that has had a lot of development in the academic literature and starting in 1990 was adopted for the public policy sphere was the use of marketable

permits. A marketable permit program is probably the academic model that the Illinois proposed VOC program most represents.

Just as a way of background, this slide indicates a wide range of programs that have been developed in the last 25 years to introduce some of these concepts of flexibility and without going into each and every one of them, let me just suggest that this range of programs represents various stages of development on the scale of the use of flexibility instruments or marketable program models and designs.

In my view, the SO2 allowance program represents the most complete shift in the underlying paradigm in regulating air pollution and if you will, the most radical reallocation of authority as between business decision-making and public decision-making and at the same time, it can be argued to be -- and I believe is one of the most successful, if not the most successful air pollution programs in the history of the modern Clean Air Act. Again, in a few minutes I will go into more detail on this.

The acid rain program -- I'm sorry this slide isn't as legible as it should be. One of the

key elements of the acid rain program and one of the key elements of the program that the agency is proposing now is to redefine the way in which compliance is articulated.

As I suggested before, command and control programs typically define compliance in terms of emission rate standards or technology standards. Individual sources are held to account for achieving certain rates of emission for unit activity or held to account for installing certain technologies or adopting certain processes.

They have never, at least before 1990, been held to account for meeting a specific emissions total. Therefore, before 1990, few, if any, air pollution programs could guarantee to the public that specific levels of actual emissions reductions were being achieved.

It was almost as if designers of earlier air pollution programs were trading tons of reduction for increasing increments of public control and command and control setting.

In 1990, with the introduction of the acid rain program, congress pioneered a specific paradigm shift. What Congress basically said in

effect was we are going to guarantee to the public that sulfur dioxide reduction on a nationwide basis will be reduced by a specific amount. In this case, ten million tons annually.

As a result, remaining allowable sulfur dixoide emissions will never exceed nine million tons. We are going to guarantee this to the public by making individual sources not accountable for particular methods or particular technologies or particular practices. We are simply going to make them accountable for the actual emissions that they produce.

From an environmental perspective, this change in paradigm, if you will, represents one of the most significant advances, if not the most significant advance, in the history of air pollution control because for the first time, the public knows that what the law says it will get in terms of emission reduction performance, it, the public, will get. It's this paradigm that the agency used in designing this particular program.

THE HEARING OFFICER: Before we go on, I can't find that particular overhead in the prefiled --

MS. SAWYER: Yes. I should have explained

this. Initially, we had intended for Daniel Dudik from the Environmental Defense Fund to present testimony -- this portion of the testimony. That's what I submitted. Dan was not able to attend. So we have slightly different sides from Joe, it's the same theme but, slightly different slides.

THE HEARING OFFICER: For the record's purposes, I'm going to read in what the slide says. "Advantages of Emissions Budget," is the title. Point one is clear environmental goals. Point two is easy to measure performance. Point three is establishes firm expectations. Point four is reduces investment uncertainty. Point five is facilitate flexibility and cost. I believe point six is reductions.

MR. GOFFMAN: Actually, point five is facilitates flexibility and cost reductions.

THE HEARING OFFICER: Oh, I'm sorry. Okay. Thank you.

MR. GOFFMAN: In any event, the --

THE HEARING OFFICER: Mr. Goffman, could you hold on a second?

MR. TREPANIER: Is that going to be held aside until it's been distributed?

THE HEARING OFFICER: I don't know if the agency planned on distributing that or not.

MS. McFAWN: It will now be in the transcript.

THE HEARING OFFICER: It's in the transcript now. I don't think it says much more than what I read. So I don't think it needs to be passed out unless the agency wants to pass these out as a courtesy, I don't know. But I just read it into the record and I don't think you're going to get anymore out of it than what's in the record.

MS. SAWYER: We are going to make several more copies of it just in case somebody wants a copy. I think you are right. He has read everything off of here into the record. We really don't have the copying facilities to make a ton of copies here in the agency's office. I think we can proceed.

MR. TREPANIER: This is part of an expedited rulemaking. It would be of assistance if I --

THE HEARING OFFICER: Excuse me?

MR. TREPANIER: In this expedited rulemaking, it would be of assistance for my, you know, understanding of what the testimony the agency is presenting to have the copy of the overheads.

THE HEARING OFFICER: I think the agency is going to make a few copies. Maybe they can give you one. Otherwise, I'm not going to order them to make copies and do it. I think it's clear from the record what the overhead says and you can get everything you can from reading the record.

MS. SAWYER: He is going to make copies right now and we will get you a copy as soon as he comes back.

MR. TREPANIER: It seems fair. I mean, yesterday, I was ordered to -- I had to serve the service list with prefiled questions. When the agency makes their presentation, they should be doing likewise.

THE HEARING OFFICER: The prefiled questions, however, are not going to be in the record until you ask them. The reason you have to prefile your questions to everyone on the service list is to give the opportunity to those to respond and prepare to response to those questions.

The overhead, as you see it, is part of the testimony only as an aid to help in his testimony, which you can ask questions about and he will answer them.

This is for preparation of his testimony, and unfortunately since Dan Dudik couldn't make it, so we're going to have just deal with what we have to deal with. I believe the agency is going to give you a copy of that. Mr. Goffman is available to come back so you can ask those questions at that time based on having the record in front of you. I think that's more than adequate.

MR. TREPANIER: Thank you.

MR. GOFFMAN: Thank you.

I know I'm probably risking belaboring the point, but I don't think from an environmental perspective I can emphasize enough the importance of this idea of defining program level accountability and the firm level accountability in terms of total actual emissions because the Clean Air Act and the efforts of environmental advocates such as myself have been plagued by years by the underperformance, and in some cases, of the non-performance of the traditional way of doing business.

By introducing this new concept or this new approach to accountability, we have seen with increasing experience, most notably in the acid rain program and as well as other programs that are being

developed in various regions in the country, much better, indeed superior, environmental performance just by making this shift.

This shift, in terms of defining accountability for firms and for programs to focus on actual emissions, does not, however, come at a net cost to the economy or to the economics of the individual industries. Indeed, what I would like to focus on in a sort of dialogue between the economic and environmental policy objectives here is that by redefining compliance in this way, regulators are at the same time given the ability to turn over to firms much more choice, much more discretion in implementing their requirements, and in the ability to make choices based on their own interests and their own information, firms are able to achieve these superior environmental results at lower cost than they would if the program were designed in a traditional way.

In the case of the acid rain program, which is the existing program with the most extensive track record, and in the case of the program for the board today, this accountability for total emissions is implemented through an instrument called

marketable permit.

In effect programs as amplified by the acid rain program and by the VOM program are implemented by an allotment or a permit to emit a specific unit of pollutants.

The acid rain programs say almost in as many words that compliance is defined in this way, that a firm is in compliance so long as it holds a number of emissions allowances equal to the number of tons of sulfur dioxide measured coming out of its smokestacks.

Since under the program, under the acid rain program, a fixed number of emissions allowances are allocated to the firms that are regulated. The public is guaranteed that total emissions will never exceed the target level. At the same time, the firms themselves can freely exchange or even save for future use these emissions allowances.

In the exchange of emissions allowances, the emissions exchange market becomes the instrument for allocating costs between and among the firms so that the firms that can make the greatest number of reductions at the lowest costs are given not only the incentive, but the simple ability to make those

reductions, whereas firms that can make fewer reductions or can only make reductions at high costs do not have to make those high cost reductions while at the same time again, the program delivers as a guaranteed matter the environmental result that's promised to the public.

By creating value in terms of cash for additional emissions reductions, an emissions trading market that works in the way that I just described creates an identifiable incentive for private sector firms to invest in environmentalization.

As I suggested in the beginning, one of the keys, I believe, to meeting our society's demand for the highest level of public health and natural resource protection is ensuring that there was a continuous stream of innovation in terms of environmental technologies and environmental practices.

This economic value for cleaning up air pollution is one of the most effective instruments for incentivizing those kinds of innovations.

The reason these incentives work is for the simple reason that not all sources have the same technical possibilities.

Even in the utility industry, which would appear at first to be a fairly a homogenized unified industry, which is industry regulated under the sulfur dioxide program, there are a variety of technical commands that different facilities have and a variety of fuels that they use.

What the initial trading market allows those utilities to do is to take advantage of and accommodate the range of technical possibilities.

Again, as I have already mentioned, in taking advantage of those ranges of technical differences, different operators and other entrepreneurs have the ability to develop innovations and be awarded for them to the extent that those innovations result in additional pollution clean up that can be exchanged in the emission trading market.

As I hinted before, this allows the allocation of responsibility as between government and the private sector to be rationalized so that government focuses on setting the standard and enforcing its compliance while industry, which tends to have the best access to information about technological possibilities, not to mention having

the best information about what its own underlying economic needs are, can make its own choices as to how to meet those enforceable standards.

That means that the business of doing business and the business of cleaning up air pollution becomes identical.

Instead of having business people and firms whose primary mission in life is to conduct whatever their underlying business is, encounter air pollution control requirements as a rigid, even abrasive, aspect of doing business, businesses are given the ability to integrate their business decision-making and their compliance decision-making to rationalize it, to produce both the environmental result and the economic result they seek.

In addition, businesses have more control over how they achieve flexibility. If you will recall, one of the points that I made a few minutes ago is that under traditional programs, the most or the only way business individual firms can achieve flexibility is by going back to the regulator and negotiating the variance or negotiating the delay.

Under a market trading system,

individual firms can simply use the emissions trading market to achieve that flexibility and do not have to rely on legal or equitable conflict or pleading with public regulators to achieve that flexibility.

From an environmental perspective, to jump back to that side of the dialogue, that way of achieving flexibility is far superior because in an emission trading market, an individual firm achieves flexibility, but without costing the environment the loss of emissions reductions.

Under the traditional way of achieving flexibility, permit variances and delays, as I said, inevitably result in more emissions and fewer delay in emissions reductions.

I believe I have already described the economic mechanism that delivers the incentives for innovation and for continuous environmental improvement that the emissions trading market generates.

Let me go back and focus on this a bit. Under traditional programs, it is often very difficult from an enforcement point of view to separate bad actors from good actors.

Often firms have trouble achieving

compliance for technical reasons that are sometimes beyond their control. The outcome for those firms in terms of compliance or failure to meet the compliance is no different from the outcome produced by genuine bad actors who refuse or simply don't have the confidence to meet their pollution requirements.

However, in an emission trading market we turn over to businesses the tools of flexibility again for the use of ideas such as emissions trading or emissions banking.

There is almost literally no excuse for a firm to be out of compliance. Thus, when in an emission trading market, a firm is out of compliance, that almost creates a kind of prima facie evidence that that is exactly the kind of firm that enforcement authorities should focus their resources on.

So again, from an environmental perspective, that more efficient use of enforcement resources, that is enabled by the use of -- by the available use of this flexibility and enhances the performance of this program and from the perspective that businesses themselves, they are given a higher

level of certainty that enforcement will be directed at the true bad actors since the non-bad actors, if you will, can safely be presumed to take advantage of flexibility tools of the emissions trading market.

One of the things we are seeing in the implementation of the acid rain program is that in the first two years of the program's life, 1995 and 1996, utilities affected by these SO2 requirements are producing 40 percent more emissions reductions than are required.

This is in part because the ability to bank for future use and/or trade for future exchange in the emission trading market of early reductions produces a tangible economic benefit.

So sources have literally had an affirmative economic reason to have more pollution control than is required and to deliver the environmental benefits of the program earlier than Congress was able to require in the 1990 Clean Air Act.

Again, the key is the ability of an emission trading market to infer upon early reductions or extra reduction activities a positive economic value. At the same time investments in

these early reductions can ultimately be used in the emission trading and backup market to enhance a firm's ability to save costs and the ability to manage both of their compliance and business needs with more flexibility.

This slide, which I think is in the revised package, simply provides a summary of the -- of this economic and almost mechanical dynamic emission trading market, market and gender.

In sum --

THE HEARING OFFICER: Just for the record, that was Page 10.

MR. GOFFMAN: In sum, to kind of perform air pollution management practices exemplified by the acid rain program and in many, many key respects mirrored in the proposal before the board, can deliver to the public not only superior environmental performance, but superior environmental performance at overall cost affording society the ability not only to reach for more ambitious environmental protection goals, but actually to achieve those higher ambitious goals.

Thank you.

THE HEARING OFFICER: Can we go off the record

for a second?

(Whereupon, a discussion was had off the record.)

THE HEARING OFFICER: Let's go back on the record, please.

MS. SAWYER: We have some copies of the presentation. Mr. Goffman did not use all of the slides in here, though. So you are welcome to them.

Since we only have several copies, if any group could just take one copy, I would appreciate it.

Okay. Are there any questions?

THE HEARING OFFICER: I guess we could proceed with any questions of Mr. Goffman at this time.

MR. TREPANIER: This is Mr. Trepanier.

Could you explain something about how this proposal is developed? Specifically, what I'm looking at is EDF's involvement.

MR. GOFFMAN: Back in 1992, EDF had developed a proposal for using a form of emissions trading to create incentives to retire old high emitting vehicles. We distributed our proposal in written form to a number of state governments including the

Illinois EPA.

I believe at the time Director Gade and Roger Kanerva showed a lot of interest in that approach and asked us to come in and brief them, which we did.

In the course of the briefing, we were given the opportunity to explain to them sort of on the general level that I have described here why we thought economic instruments produced superior environmental results.

In the course of those discussions, we learned that the Illinois EPA was wrestling with a new round of NOx emission control requirements and a new round of VOC emission control requirements.

We thought or we told the agency at the time that we thought that new programs could be designed using these ideas.

Director Gade and Mr. Kanerva expressed a lot of interest in that idea. We discussed how to go about the process of sort of putting one intellectual foot in front of the other or one political foot in front of the other and then heard back shortly thereafter that the Illinois EPA was putting together a design team of individuals who

either had specific expertise in this area or represented critical interests that would be affected by these programs.

We were invited to be part of the design team as an outgrowth of our initial presentation or briefing, if you will, of the Illinois EPA.

MR. TREPANIER: What expertise did the EDF bring?

MR. GOFFMAN: The bodies, if you will, of the design team were myself who would have spent at this point ten or 12 years working with the Clean Air Act and Dr. Daniel Dudik, who is an economist.

By the way, I'm a lawyer. Dr. Dudik is an economist. He has spent, I would say, the last 20 years of his professional career designing economic instruments to be used to manage air and water pollution.

In addition, Dr. Dudik and I were supported, if you will, by Dr. Michael Oppenheimer, who is an atmospheric physicist, who is in charge of the EDF's air quality program. This wasn't the first time that Dr. Dudik and I had worked together to design these kinds of programs.

The EDF, in 1989, put together a

blueprint for using emissions trading to reduce sulfur dioxide emissions and that blueprint evolved into -- essentially evolved into the program that Congress passed.

Along the way --

MR. TREPANIER: If I could just ask another question, when you are referring to Congress passing that, and I understand that you have a lot of experience in this, was that the 1990 Clean Air Act that you are referring to?

MR. GOFFMAN: Yes.

MR. TREPANIER: Now, did that 1990 Clean Air Act provide the statutory means to bring about this program today?

MR. GOFFMAN: Yes, it did.

MR. TREPANIER: So when IEPA told you that they were working on a trading program to meet their -- the fact that Chicago is in severe nonattainment, this didn't surprise you?

MR. GOFFMAN: I didn't -- I'm not sure I understand your question.

MR. TREPANIER: I mean, when you came to the idea with your proposal for a market system, was the retiring vehicles part of the market system?

MR. GOFFMAN: Yes, it was.

MR. TREPANIER: And you came to the IEPA with your proposal for a market system?

You knew they were open to such a proposal?

MR. GOFFMAN: When we proposed the vehicle trading program, we had sent it to a number of states. We didn't have any prior knowledge as to which of those states would be more or less amenable to considering the idea.

One thing I didn't mention, which I should mention now, is that the IEPA actually ran a pilot project using the ideas that were in our proposal and that pilot project seemed to be successful and it was in the course of digesting the results of that pilot project that we had the most extensive discussions with the agency.

At that point, obviously, given the success of the pilot project and given the, how should I say, intellectual rapport that we thought we had established with the management of the agency, it wasn't surprising that they wanted to use this idea to go after the VOCs and NOx.

MR. TREPANIER: When the EDF was participating

on the design team, what areas was the expertise that EDF brought to bare?

Did you have a certain area? I know experts were brought in and they were brought for a certain area and did EDF have a certain charge on the team?

MR. GOFFMAN: Well, we certainly -- I don't think it was -- roles were not formally defined within the design team.

Dr. Dudik and I, because of our experience with the acid rain program, were able to really focus on the sort of, what I will call, the structural elements of designing the program, the legal elements, and the economic elements.

Ultimately, we contributed a lot to the mechanics of the program. At the same time we were in regular consultation with Dr. Oppenheimer to make sure that the mechanics of the program matched the best understanding of the atmospheric behavior of the pollutants we were trying to regulate.

MR. TREPANIER: Are you working also with the Michigan and California programs?

MR. GOFFMAN: We worked a little bit with Michigan and a little bit with California. We

affirmatively dropped out of the Michigan program because we felt the approach that they were taking with emissions trading was illegitimate. We worked a little bit on the California programs on a more informal basis.

MR. TREPANIER: Could you elaborate on that a little bit? What are you seeing in Michigan that was illegitimate?

MR. GOFFMAN: The Michigan program falls under the category of emissions trading, but it doesn't use the fundamental paradigm shift of redefining compliance in terms of actual emissions and capping compliance.

It purports to allow sources to trade emissions, which are not certifiably or by definition surplus emissions reductions. So you get a fair amount of or in theory, you get a fair amount of flexibility in terms of firms being able to trade increments of compliance, but what the public doesn't get is a guarantee that emissions reductions will be achieved fully and total emissions will remain at the target level.

MR. TREPANIER: So you're saying in Michigan, there is no cap?

MR. GOFFMAN: That's right. I also in my view, the kind of model they used is likely to have significantly more transactions costs with businesses trying to trade and therefore, to the extent that a well designed emissions trading tool can really make the economic energies of business act as an ally for environmental performance, I don't see the Michigan program delivering that.

That again, as I wanted to point out, that's almost a secondary consideration, the simple fact that they don't cap emissions. They don't redefine compliance to make anyone accountable.

MS. SAWYER: Mr. Goffman, I have just a quick question.

Is the Michigan program something that's commonly referred to as an open market trading program?

MR. GOFFMAN: Yes. It is an open market trading program.

MR. TREPANIER: In a comparison of the Michigan program with the Illinois program, you say that the Illinois program is legitimate because it has a cap on emission?

MR. GOFFMAN: Yes.

MR. TREPANIER: And then in the Michigan program, that's not distributed throughout all of the existing polluters?

MR. GOFFMAN: Basically, in the Michigan motion, polluters have their underlying requirements, which I think in most cases are emission rates or technology standards and --

MR. TREPANIER: But there's no baseline? No baseline determinations have been made?

MR. GOFFMAN: Yes. Also, I think they commit what are called discreet emissions reductions. You can make an emission reduction -- you can show an emission reduction in one year, bank it, and then even if your emissions go up in subsequent years and the whole sector's emissions go up in subsequent years, that banked reduction is still savable and tradeable, as I understand the program.

MR. TREPANIER: From your testimony, and I point to the fifth overhead, the fifth exhibit, "Why Use Incentives," it was your testimony that the SO2 program had allowed for a faster emissions reduction.

Now, is that because those who could

obtain emissions reductions easily, that it also happened to be fast for them to do that, and so that's why it was fast?

MR. GOFFMAN: Well, I think it's a little bit more complex than that. What the -- my understanding of what action went on in the industry is that the sources that are covered in the first years of the program didn't have a number of source choices as to how they were going to make their reductions.

A number of those choices did, in fact, allow them, you know, whether it was putting on stacked emission scrubbers or buying low sulfur coal from western sources, that they had not previously gotten coal supplied --

MR. TREPANIER: Yes, we've heard some testimony on specifics, but what I'm looking from you is -- regarding your testimony is that the marketing in emissions -- what I'm saying is your testimony is marketing and emissions makes emissions reductions faster.

MR. GOFFMAN: I mean, my testimony --

MR. TREPANIER: I'm asking you to tell me what it is about the marketing, how is that?

MR. GOFFMAN: Basically, if you -- the way a

system like the SO2 program works is that if you create an extra reduction or a reduction sooner than you need to, that reduction, if saved for future use or traded, can actually bring cash value to the party making the reduction.

Unlike other programs, a business decision-maker is given an affirmative reason in economic terms for making those emissions reductions.

MR. TREPANIER: Okay. Is that --

MR. GOFFMAN: Now, I can't tell you whether in the event firms that made that decision in '95 and '96 would have done it anyway.

What I can tell you is that they did do it and they did it in a regulatory and economic environment in which the decision to do it correlated to a potential economic reward.

It's the alignment of that economic award and that activity which creates, I think, non-trivial evidence that that correlation probably has some causative connection because in other air pollution control programs where that correlation has not existed, we have not seen this degree of early reduction activity.

MR. TREPANIER: Was that value that you believe that the polluters could see, that they would gain a value by reducing their emissions, was that value realized, this forecast?

MR. GOFFMAN: My understanding is that that value will be realized when those extra reductions are used or sold.

So far, a lot of the firms are simply holding onto those reductions and not transacting them, but I think from an operational point of view, the existence of those reductions, that could help accommodate future economic activity is sort of a -- it's a value in and of itself.

It gives firms that bank of extra reductions as a concrete tool that firms can use over time to increase their flexibility.

MR. TREPANIER: Are you saying they are ahead of the regulators?

Are you suggesting that there was a bank of these pollutions being built up?

MR. GOFFMAN: Uh-huh, that's right.

MR. TREPANIER: And you see that as a positive result of the program?

MR. GOFFMAN: Yes, because that bank

represents emissions that are removed from or taken or prevented from going into the atmosphere today and in the context of acid rain, sulfur deposits is primarily a cumulative problem.

So the sooner the sulfur gets removed or curved and therefore, the sooner the greater amount of sulfur deposition is prevented, the more quickly natural ecosystems can begin to recover from the effects of acid deposition. I think --

MR. TREPANIER: Here is specific knowledge. I have just stopped, because I am not looking for anything that very specific, but appreciate you're addressing my question on this bank of pollution being built up. I haven't had a lot of opportunity to review this proposal, but I want to ask about this pollution bank.

Now, isn't it possible that the bank could be broken? What if everybody shows up and wants to withdraw their pollution allotment?

MR. GOFFMAN: It's possible, but given the value of maintaining the bank, most people who have looked at the acid rain program, and I agree with this analysis, anticipate that the bank will always be a non-zero bank.

There will always be allowances in case the acid rain program held in the bank -- because the firms that generate these allowances and maintain the bank are perpetually looking for to future activity for which they will need some margin of flexibility.

So having a bank whose value is greater than zero is not only operationally valuable to the firms, but is environmentally valuable because the bank represents additional reductions.

MR. TREPANIER: Okay.

MR. GOFFMAN: Yes. In theory, the bank can be broken, if you will, but the more years that pass in the acid rain context when the bank isn't broken, the greater the environmental benefit.

Ultimately, that is sort of a theoretical risk against which we are today seeing actual benefits. It's inevitably the case that in designing programs like this, you have to make that kind of trade-off and the trade-off between actual present benefits and theoretical risks in that context makes sense.

In addition, in the case of the program before the board, the unlimited ability to bank that exists in the acid rain program is limited at least

somewhat by the fact that in this program's case, firms can only build their bank up to a certain extent because the usable lifetime of banked credits is very limited.

So in effect, the Illinois program goes back to look at the benefits of early reductions against the risk of the bank being broken and introduces another design feature that further hedges or limits or constrains that risk.

MR. TREPANIER: When you reviewed the proposal, and I would assume that you have reviewed that closely, and analyzed that to see if it met the requirements of the Clean Air Act?

MR. GOFFMAN: Yes.

MR. TREPANIER: And do you have an opinion on that?

MR. GOFFMAN: Well, you know, as a process matter, I think it's ultimately up to the U.S. EPA to approve the program as a SIP revision. The U.S. EPA obviously is going to go and look back to see if it meets the requirements of the Clean Air Act.

In my view, it does. In my view, this is an imminently approvable program under the requirements for SIP revisions under the Clean Air

Act.

MR. TREPANIER: Do you feel that that was one of the expertise you brought to the design committee?

MR. GOFFMAN: To a certain extent, yes.

MR. TREPANIER: And then would you characterize that the meeting of the requirements of the Clean Air Act specifically -- I'm sorry that you weren't here to see yesterday's testimony.

There was -- but maybe you can recall from your experience in the program that there was a projection in 1999 that shows what was the anticipated emissions level under this program and also on that chart was a number that shows what was required under the ROP Clean Air Act requirements.

Are you familiar with that 1999 determination?

MR. GOFFMAN: I remember seeing it detailed as early as March 1995. I haven't looked at it since.

MR. TREPANIER: I do want to establish that you have knowledge of what the program that you participated in designing, what that target is. I use the word target loosely because I'm not certain

how it -- what it means to you. Did this program meet the target?

MR. GOFFMAN: Well, my understanding is that the way this program works, it will, by definition, meet the target because it's being implemented by the allocation of authorization to emit a fixed amount of VOCs or VOMs and that amount will be equal to the numerical target chosen.

My understanding of the agency's strategy is that that target will be revised in all likelihood downward, that is, the direction of fewer allowable emissions over time as the agency develops more analysis as to what the total number of VOC emissions reductions in the sector has to be in order to continue with ROP and ultimately to reach attainment in 2007.

The beauty, if you will, of this program is that the target, the numerical target, is built in with a full degree of automaticity, if you will, by operation of the use of this fixed allotment of VOM emissions units.

So assuming that this program -- assuming that sources are in compliance and the agency is going to bring to bear the compliance and

enforcement resources that it traditionally brings to bear for air pollution programs and as you know, I think it will require somewhat fewer resources than traditional programs do, and then almost by definition, this automaticity element will deliver the target.

MR. TREPANIER: Are you familiar with the proposal's provisions for baseline determinations?

MR. GOFFMAN: I'm familiar with what the proposal says. I don't --

MR. TREPANIER: Do you have a familiarity to any extent to understand --

MS. SAWYER: This is really specific testimony on the rule. Joe's testimony was more on --- essentially on market systems in general.

MR. TREPANIER: I'm specifically asking here regarding Joe's testimony that the market system requires less -- basically, it was -- I recall the testimony that it was -- it is focusing on the resources.

I believe that's the testimony that -- Joe's testimony has been that the agency's resources are going to be used more efficiently. So I'm trying to determine if Joe has within his basis and

knowledge what it's going to require the agency to make baseline determinations.

MS. SAWYER: And that isn't something within Joe's expertise, really, what the agency's resources are.

MR. GOFFMAN: I did say as a general matter, in terms of enforcement, the agency will be able to use its enforcement resources more efficiently and I also suggested that as between the private sector and the agency, the agency will be able to use its information gathering resources about the means of compliance that are available to firms more efficiently.

MR. TREPANIER: Would you apply that, then, to that situation you referred to as a bad actor? You know, let me know how the agency is. Let us all -- let the board know how the agency's enforcement tools are going to be used more efficiently when the bad actor or makes their participation --

MS. SAWYER: Joe is more presenting that in a theoretical fashion to market programs and not specifically as to how the agency is going to use its enforcement.

MR. TREPANIER: Okay. Well, this question is going to what enforcement -- how is enforcement made about in the market system.

MS. SAWYER: A theoretical question on that area, Joe could answer, but the specific --

THE HEARING OFFICER: I think I will let Mr. Trepanier ask his questions as to Joe's opinion as to any agency, not just the EPA, because I don't think Joe can answer questions specifically to the EPA of Illinois.

He can answer questions about how he feels that the markets system can help agencies in general focus their attention on enforcement versus whatever else.

I think if you maintain your questions in that vein, Joe can answer.

MR. TREPANIER: Thank you.

THE HEARING OFFICER: If you ask about a specific agency, how the agency is going to do it, this agency, that is, the Illinois EPA, I don't think Joe is in the position to answer those questions.

MR. TREPANIER: Thank you.

THE HEARING OFFICER: So if you want to ask

the general question, go right ahead.

MR. GOFFMAN: Well, assuming everything that the board has just expressed qualifies my answer. My view is that when you give firms the range of flexibility of meeting compliance, which you have under a market program, that there was a much higher tendency to have the firms that end up in non-compliance be, first of all, smaller in number. Second of all, that would be the kind of firms that really merit agency attention.

The experience with more traditional programs is often that -- particularly programs that rely on describing technologies or implicitly describing technologies -- the experience with those programs is that there is sort of a category or range of firms that for technical reasons that have nothing to do with the level of effort the firm has put into try to comply still failed to comply.

So the agency has to worry about those firms in addition to the smaller group of firms that for whatever reason refused to comply or refused to amass the resources they need to comply.

Now, in the case of a program like this in that category of what I will call accidental

non-compliers ought to be reduced to zero because if a firm is finding that it is for technical reasons otherwise beyond its control and otherwise nothing to do with its level of effort is not going to be able to comply on site, that firm has the ability to go into the emissions reductions market and purchase the necessary emissions reductions from other firms that can exceed compliance to offset their emissions.

That transaction allows the firm in question to be in compliance. It gets the total emissions reductions that you want and the agency doesn't have to go in and figure out why that firm chose to buy emissions reductions as opposed to the technology.

The firms that are then left over who haven't done that and haven't been in compliance really can't point to some technical reason in most cases that they weren't in compliance and therefore, that second group of firms, presumably a smaller group, will be the ones the agency really needs to focus on.

MR. TREPANIER: Okay. In this program -- now, in looking at this program applying some of that information, you referred to an accidental

non-complier. Under this proposal, accidents are -- allotments aren't required to be held for accidents, isn't that correct?

MR. GOFFMAN: No. When I said an accidental non-complier, I meant a firm that is trying to comply doing everything within its ability to comply and because of some event beyond its control, because the technology that was -- that they decided to put on doesn't work as well as they thought it would or as the vendor promised, it doesn't produce the full emissions reductions, that firm still has another legal recourse, and indeed an obligation, to make up for the under-performance of its technology by going out and buying emissions reductions.

If the firm does it, then, the agency doesn't have to worry about policing or supervising or investigating that firm.

The agency can use those same resources to look at the firm that even though a market for emissions reductions is available, it decided not to got into the market.

MR. TREPANIER: Under that -- with your explanation -- your explanation, to my understanding is, that the agency accepts at face value submissions

from the polluters.

MS. SAWYER: I don't think that Joe -- by the agency, you mean in the general fashion?

MR. TREPANIER: Yes, the agency meaning -- the question in the form that the board had asked that I ask these questions.

MR. GOFFMAN: Theoretically -- well, not theoretically, my expectation is that most of -- the history of most of these programs is that the information that is provided to the firms is essentially a quantification or a measurement of the firm's actual emissions.

In most cases, and I believe in the case of this program, those submissions, the measurement or quantification of the actual emissions that the firm is producing, has to be certified to the agency.

For example, in the case of the acid rain program, that information has to be legally certified and if the firm submits false information or information that doesn't otherwise meet certification requirements, the firm is in violation of the law.

MS. SAWYER: And we are going to present some

further testimony on that type of information from the agency witnesses.

THE HEARING OFFICER: I think there are some other questions from the audience.

MR. WAKEMAN: I'm Jim Wakeman of Tenneco.

Can you comment on the failure or the struggling of the reclaim system in California?

MR. GOFFMAN: Yes, I can comment. As far as I can tell, there are two reclaim programs that people are referring to. Are you referring to the reclaim program for SO2 and NOx or VOCs?

MR. WAKEMAN: For the VOCs.

MR. GOFFMAN: Okay. My understanding -- and it's based on conversations with some of the air managers in the South Coast Air Quality Management District, and one of the representatives of industry coalition -- is that that program chose to regulate or attempt to regulate a very narrow group of industries under a VOC program and that the group of industries involved tended to have cyclical emissions increases or decreases that match economic cycles.

So that in effect when anyone firm's emissions were high, most of the other firms in the

industry and in the program were going to be high.

Therefore, firms that might need to buy reductions from the emission reduction market couldn't identify other firms whose emissions would be low at the same time theirs were high.

As a result, those firms asked the agency to, in effect, inflate the emissions baseline so that they could be sure that there would be enough allowable emissions within the program, within the VOC program, so that they could operate through the various economic and activity cycles that they anticipate.

The level of inflation of the emissions baseline that the industry was asking for was so high that if adopted, it would have defeated the basic VOC reduction purposes of the program.

To me, that means -- and I think the people that I have talked to from the South Coast agreed -- that the inability to come up with a program was an artifact of the initial decision to have the reclaimed VOC program cover such a small number of industry sectors.

In contrast, my understanding is that this program includes a variety of sectors and kinds

of sources and effect in industries so that the economic cycles that produce different activity levels in one group or sources won't correspond to the same economic cycles of other groups and sources.

In other words, there would be enough difference in the economic experiences of different sources of this program that it's reasonable to expect that a robust emissions trading market could take place.

The short answer was reclaim for whatever reason in the VOC area didn't make the market bureau.

MS. SAWYER: Mr. Goffman, I just have a point of clarification on that.

Wasn't the reclaim program for VOC emissions that they were designing a year-round program?

MR. GOFFMAN: Yes, yes, that's also true because they have a year-round ozone system.

THE HEARING OFFICER: Are there any other questions?

Ms. Mihelic?

MS. SAWYER: Can we take a couple moments,

like, a five-minute break or so?

THE HEARING OFFICER: All right. I was planning on taking a break at 11:00. We can take a five minute break now. Let's make it ten.

(Whereupon, a discussion was had off the record.)

THE HEARING OFFICER: Let's go back on the record.

MS. MIHELIC: Mr. Goffman, I'm Tracey Mihelic with Gardner, Carton & Douglas.

On the slides that you have shown today, there were certain statements made and I'm talking about not the ones you entered earlier in the exhibits, but on the actual ones which were summarizing your testimony.

For example, on Page 25 -- the slide marked Page 25, it states establishes firm expectations. Could you explain to me what you mean by this?

MR. GOFFMAN: That means several things. First of all, from the perspective of the public, it establishes that the public can't expect a particular environmental or at least total pollution loading outcome.

THE HEARING OFFICER: Mr. Goffman, since that was the one that wasn't part of the handouts, could you just throw it up on the overhead while you are talking about it?

MR. GOFFMAN: Sure.

THE HEARING OFFICER: Thanks.

MR. GOFFMAN: You bet.

THE HEARING OFFICER: I'm sorry to interrupt your train of thought.

MR. GOFFMAN: That's okay. It's a pretty slow train.

The statement that it's a double edged sword is in the positive sense, as I was starting to say, can have a legitimate basis, in fact, for expecting a specific environmental or pollution loading outcome, which is not something that other approaches to pollution control that rely on technology or implicit technology description standards setting does.

At the same time, in some ways it gives complying sources or complying firms a more certain or definitive expectation as to what their obligations are going to be because the compliance target is put in front of each firm and the range

of tools again in the form of emissions banking and trading is put in the control of the firm.

That statement contrasts with more traditional ways of doing business where an individual firm may recognize a situation in which it cannot technically or at least cannot affordably meet its compliance requirements fully or meet them on time and feels that it will have to go back to some sort of administrative process to get a variance.

Well, that introduces a lot of uncertainty on the part of the firm in terms of what's expected of them. That's basically the point I was trying to make.

MS. MIHELIC: And on the same page, it talks about reducing investment uncertainty. Does that relate back to what you were just saying?

MR. GOFFMAN: Yes, same thing. I mean, it's just practical experience with air pollution control programs that firms in some cases have been required to put on specific technologies per regulatory or legislative mandate even though the firm had a reasonable expectation that the technology wouldn't work and that eventually, it would be in some kind

of administrative proceeding or negotiation with the agency in which case it would either be given a variance or be told to do something else.

For example, in Title 4 of the Clean Air Act, the same title that produced the SO2 trading program, there is a NOx reduction program, which is a classic technology-based program.

Congress, in effect, said or almost in as many statutory words said that if a firm -- if a particular utility boiler were subject to a particular technology standard, even if it could predict that particular technology won't work to meet the full measure of compliance specified in the statue, the firm still has to, in effect, put the technology on and try it and demonstrate that it has tried it and it doesn't work.

Now, the symbolism of that from a public control point of view may be very gratifying, but from the point of view of the emissions control outcome, it doesn't do very much, and from the point of view of the firm, it forces them into investment strategy. You know, it's almost absurd.

MS. MIHELIC: I think along the same things on what is marked as Page 6 of what you handed out,

you also talk with less fear and more certainty in compliance and that is related because companies who know what they are going to have to do, i.e., what their emissions are going to be in the future?

MR. GOFFMAN: Right. It also refers to something very specific. If the firm wants to do something different, quote, unquote, from the norm under a technology standard, the firm has to go through -- maybe I should just put this up. I guess everybody has a copy of this.

The firm has to mediate its preference for doing something different through some kind of administrative or bureaucratic or legal proceeding where the events therein are not within its control.

In an emission trading market, the firm, in effect, knows that it will either do what it takes on-site to reduce emissions or it can go into the emissions trading market about which it has a lot of information already because markets are very good at producing information and disseminating it and it will know which of those choices it's going to exercise and will have a reasonable degree of certainty as to what will happen whenever it pursues whichever choice it exercises.

So this sort of mediating of the preference is not some uncertain administrative or legal process. The mediating of the preference is, say, going into market or going to the technology vendor about which the firm is going to have a lot of information and have almost complete certainty.

MS. MIHELIC: Then, on Page 10 of the handouts, you state that reduction of uncertainty is through banking.

Are you talking about the same kind of uncertainty?

MR. GOFFMAN: Yes, absolutely.

MS. MIHELIC: And this is because sources can bank their emissions and use them in the future?

MR. GOFFMAN: Yes, yes, absolutely.

MS. MIHELIC: And under the SO2 program, when sources bank, their emissions are banked forever? There is no -- they do not expire?

MR. GOFFMAN: Under the SO2 program, that's right. That is a design artifact of the nature of the environmental providence that's sought to be solved.

MS. MIHELIC: And you also state on that same slide that reward is inducement to R and D.

Is this reward you are talking about as inducement to R and D sources who reduce early are rewarded by being able to bank those emissions?

MR. GOFFMAN: Yes, and/or being able to sell those emissions. Again, even if they are, quote, unquote, just sitting in the bank, they show up as having asset value for the firm.

MS. MIHELIC: So on their asset sheets, on assets liabilities, it's shown as an asset?

MR. GOFFMAN: Right, which eventually can be realized either in cash or in kind.

MS. MIHELIC: And under the Title 4 banking system, a source has been told by basically the U.S. EPA and Congress this is the amount of emissions you must start with, you must reduce in increments over time so that each year, you will have a different, in a sense, amount of emissions or every few years, a reduced amount of emissions?

MR. GOFFMAN: Yes. You're starting point will change, the initial allotment that you are given changes. Again, bearing in mind that you can go into the market and change that amount, you can either shrink it or increase it as you see fit.

MS. MIHELIC: By buying or selling?

But each year, can a source bank emissions that it doesn't emit so if it's reduced early, does it get additional emissions to bank?

MR. GOFFMAN: Well, it works on a, I guess what I would describe, as a very simple mechanical level like a checking account. Let's say a source is given 100 emissions allowances in the year 1995. It emits 90 tons. It keeps the ten 1995 emissions allowances.

In 1996, it is given an additional 100 and the number of those that it keeps or consumes just depends on how much emissions it has in 1996. There is no further need for any kind of regulatory intervention.

So it's just like cash in a checking account. You know the asset or the emissions allowance is either spent or not spent and it stays until it is spent or disappears when a check is written.

MS. MIHELIC: When we refer to a bank, it's really an individual sources bank?

MR. GOFFMAN: That's right.

MS. MIHELIC: It's not a bank held by the U.S.

EPA or Congress, it's a sources bank?

MR. GOFFMAN: That's correct. It's therefore completely within the source's control.

MS. MIHELIC: And the Title 4 program has established emissions reductions that are going to be required through 2010 so sources know through 2010 what they are going to be required to reduce?

MR. GOFFMAN: That's correct.

MS. MIHELIC: And sources basically had to come up with their first reductions in 1995?

MR. GOFFMAN: That's correct.

MS. MIHELIC: So there is a 15-year period of time when sources now know what is going to be required of them in the future at least for the next 15 years?

MR. GOFFMAN: Yes, that's correct.

MS. MIHELIC: Okay.

MR. GOFFMAN: Now, let me just -- can I elaborate on that?

MS. MIHELIC: Sure.

MR. GOFFMAN: Title 4 specifically said that the allotment, the specific number -- the allotment of the specified level of allowances in the statute did not in any way, shape, or form curtail any states

or the U.S. EPA's ability as changing information emerged about additional environmental requirements.

It didn't curtail or compromise the ability of any regulatory authority or Congress itself to at some point between now and 2010 change that number and reduce it. So --

MS. MIHELIC: But the initial program set up at least a 15-year time frame, probably even longer, so sources were aware of what reductions were going to be required?

MR. GOFFMAN: They were aware of what reductions were going to be required subject at any time even within the 15-year period you're talking about to the U.S. EPA or Congress acting further to reduce emissions if some additional environmental need occurred.

So the expectation of the sources in that program is that they are going to get this 15-year assignment, but that 15-year assignment is still -- they are also aware that it's subject to further possible regulatory act.

MS. MIHELIC: When the program was implemented at that time, did U.S. EPA or Congress, based upon your involvement in this program, believe at the time

that they implemented these reductions that further were actually going to be required and know that further reductions are actually going to be required than what they set forth in the program.

MR. GOFFMAN: This was the information that was available to all participants at the time. The U.S. EPA has a continuous obligation every five years to re-examine the standards or something called the National Ambient Air Quality Standards, one is for particulate matter, which is closely associated with, if not identical to SO2.

So even at the time that the program was set up, everybody knew under Clean Air Act that the EPA was going to continually look at the the particulate matter standard, which would directly effect SO2 emissions and the regulation of those SO2 emissions.

Indeed, around the time that the program was enacted, current generation of epidemiological studies concerning particulate matter is beginning to emerge.

So there was a clear indication of a real possibility that firms' SO2 allocations could be subject to change virtually at any time in that

15-year period if and when the EPA acted on this emerging epidemiological evidence and tightened the SO2 standards as a health impact pollutant.

MS. MIHELIC: But U.S. EPA did not know at the time they implemented Title 4 -- did not know for certain based on information that they had had to date that further reductions were going to be required in 1995 other than that set forth in the program?

MR. GOFFMAN: No.

MS. SAWYER: I think you are going a little bit beyond Joe's specific knowledge of what the U.S. EPA knew at that time. If you are saying what was set out specifically in the act, that's a factual matter.

MR. GOFFMAN: What I am saying is I don't know what EPA knew at the time, but the act said what it did and the information generally available to effected parties included this incipient revision or incipient process, which has begun -- which began to culminate last November to revise the act's standard for particulates.

MS. MIHELIC: I'm going to back to the years when this actually came into play.

MR. GOFFMAN: Yes, yes. Well, like I said, nobody knew what was actually going to happen. People knew what the possibilities were.

MS. MIHELIC: But they did know at the time -- they weren't for certain at the time that there were actually going it be further reductions needed three years down the road regarding these emissions?

MS. SAWYER: I think he actually already answered that.

MR. GOFFMAN: No, no, they didn't. In some ways, it reduces a level of uncertainty in the acid rain program, as I understand it, that doesn't exist under the long-term strategy of this program.

MS. MIHELIC: Can you elaborate a little bit on what you mean by that?

MR. GOFFMAN: Well, if I understand it, the agency has already articulated a plan to continue as stepping down of emissions on VOCs for this source category. I think they have already said when they are planning to do it.

In the context of SO2, all people knew was that at some point, the agency was going to be looking at a particulate matter standard and, you know, with some degree of likelihood at some point

going to be doing something about it, that could directly effect the ability of Title 4 sources to emit SO2 at the levels articulated in Level 4.

MS. MIHELIC: I think you stated earlier in your testimony when we were talking about the slides that really the incentive to reduce early is the banking, is that correct?

MR. GOFFMAN: Yes.

MS. MIHELIC: If the source could not bank emissions as it can under the Title 4 program, do you think you would have seen significant reductions that early if sources were not able to bank those reductions and use them later?

MR. GOFFMAN: I think banking plays a significant role in creating that incentive, but even the ability to sell allowances contemporaneously creates an identifiable separate sample, if you will, to make the kinds of investments that firms make that produce additional reductions early.

MS. MIHELIC: Did you state earlier that the reductions that have been achieved under this Phase 1 by the current reductions, the banking that has occurred -- that people have actually reduced emissions at the facilities and they haven't

really relied upon the selling of emissions?

MR. GOFFMAN: There has been -- no. There has been a fair amount of selling of emissions.

MS. MIHELIC: And when you say selling of emissions, between companies themselves or between separate companies? When I look at corporations --

MR. GOFFMAN: Both, both. There have been a lot of transactions between completely separate companies and there are two or three active businesses that provide forms of transactions in different ways.

Some arrange bilateral transactions. There is even one firm that has sort of a bulletin board or a continuous electronic spot auction for selling allowances at an arm's length.

MS. MIHELIC: And do you know if these trades were occurring in order for sources to demonstrate compliance with reductions that were required or if they were simply buying them for future use?

MR. GOFFMAN: I think both. I'm reasonably sure that some transferred allowances were turned in in the same year by the buyer to meet its compliance.

MS. MIHELIC: But some transactions also

may have occurred basically to bank for future use?

MR. GOFFMAN: Yes.

MS. MIHELIC: I have no further questions for you at this time.

THE HEARING OFFICER: Are there any other questions from the public?

MR. TREPANIER: The question I asked -- maybe you could have this to refer to. It's Figure 5 that the agency presented in their exhibit for the air quality strategy presentation. I would like to refer a question to that.

MS. SAWYER: What is the question?

Could you state the question because he didn't testify about Figure 5? I'm not really sure that Joe should be answering that question.

MR. TREPANIER: Okay. What I'm proposing to do is use Figure 5, if the witness is familiar with what the information that it represents, that by using this figure --

MS. SAWYER: He is not familiar with Figure 5. He has never seen it.

MR. TREPANIER: I need to describe to you what is on here.

MS. McFAWN: Before you describe it, could you

pose the question so we could determine whether we should follow this line and have him testify?

MR. TREPANIER: When as a member of the design team you came up with this proposal, did you come forward with the proposal that was part of an overall package to meet the requirements of the Clean Air Act?

MS. SAWYER: I'm not sure I understand that.

MR. GOFFMAN: I'm not sure. Are you --

MS. SAWYER: That's really, I believe, an air quality issue that the state of Illinois deals with in terms of our plan to meet the requirements of the Clean Air Act.

MR. GOFFMAN: What we were trying to accomplish --

MS. SAWYER: His role was from a policy perspective essentially giving input in that area rather than the air quality planning aspect of it, per se, besides, you know -- go ahead.

MR. GOFFMAN: I mean, what we were trying to come up with was something that was a robust durable mechanism for delivering whatever level of emissions reductions on an ongoing air quality analysis as indicated were needed.

If the issue here is the agency going to ask for enough VOC reductions, I don't know. What I can tell you is that if you care about getting emissions reductions, then, this is the best mechanism for getting them.

If the issue is whether they are asking for enough emissions reductions, that's a separate question. That goes to the basic decisions about, you know, what goes into the baseline, what the percentage reduction is, how carefully the agency collects actual information based on the experience in the early years of the program, and what the next incremental reduction numerical value is.

If they get that right in terms of setting the numerical value, what I'm saying is the best way to get there to actually see that that numerical value happens in the atmosphere, is use a program like this one.

MR. TREPANIER: Is that the -- what in addition, then -- I hear you're describing the ability of a system that you have designed to meet a reduction level that's demanded of the system.

MR. GOFFMAN: Right.
MR. TREPANIER: It's kind of a black box operation. That's what I'm hearing you saying. In your earlier testimony, you said that you thought through the critical elements.
MR. GOFFMAN: Right.
MR. TREPANIER: Now, does -- the critical elements, are those parts of the black box or something in addition to the black box?
MR. GOFFMAN: Well, I'm not -- I'm not comfortable with the term black box. Metaphorically, I don't --
MR. TREPANIER: Okay. What I'm meaning then --
MR. GOFFMAN: But I can speak to you in a non-metaphorical way. The Illinois EPA, as I understood it, is going to engage in a separate process, which was not within the purview of the design team for this set of issues in determining how many VOC reductions were going to be needed from this sector at what point in time.
We were given a very general idea periodically through briefings by the agency staff as to what they had learned as they were going

through this process and generally what the dimensions of the reductions would be.

However, we did not directly address whether or not the dimensions of the reductions they were asking for were appropriate.

We simply used the state of knowledge that was shared with us at the time to refine the delivery mechanism of those reductions.

We were comfortable, and I guess what I'm testifying to today, is that this delivery mechanism will be successful in producing the quantity of emissions reductions determined to be needed by the air quality analysis.

MR. TREPANIER: Was one of the critical elements about being able to forecast reasonably well what a growth would be of emissions under the program that you are designing?

MS. SAWYER: I think that's an air quality issue that we did address yesterday in terms of forecasting growth. That's an issue to come up with the target, in essence.

MR. GOFFMAN: Exactly. But it's not --

MR. TREPANIER: My question is is that a critical element?

MR. GOFFMAN: It is and it isn't a critical element. It's an element that is assumed by using a CAAPP approach basically.

I mean, what this system says is that during each regulatory period, the agency will determine how many total VOC emissions from this sector the atmosphere can tolerate and still meet the ozone standard and that that number of emissions will be reduced to a fixed set of allotments, which will then be handed out to sources.

From an environmental view, that accommodates or that addresses the issue of growth. From an economic point of view, flexibility instruments captured by banking and trading will allow sources to meet that CAAPP through banking and trading basically and to accommodate economic change like growth.

MR. TREPANIER: Is there currently a cap?

Has the cap been numbered? Do you know what it is?

MS. SAWYER: I'm not sure I follow that question. That seems to be --

MR. TREPANIER: Have the amount of allotments

of VOC emissions been capped in Illinois?

Do you know what the cap has been set at?

MR. GOFFMAN: I don't know the numbers, but there is an algebraic formula that will produce that number.

MS. SAWYER: This is a fundamental of how the rule operates to establish the cap. That's a question that should be directed to another agency witness.

THE HEARING OFFICER: This is going beyond the scope. I think there's a question in the back.

MR. NEWCOMB: I'm Chris Newcomb.

I was wondering do you see any negative impacts on a source's incentive to create emissions reductions and gain an allotment when that allotment will expire in only two years?

MR. GOFFMAN: No, because my understanding of the way the program works is that sources can continue -- if you can continue to manage their banked allotment inventory in such a manner, but notwithstanding the expiration of two years of the given allotment, that allotment can be replaced and added to if the source continues to make surplus

emissions reductions.

What the two-year limit does is ultimately put an upward limit on the size of the total bank a source can be carrying. The balance between ensuring that the bank doesn't get too big and therefore, threaten future air quality against the size of the incentive to produce earlier reductions, my sense is that what the design team came up with is the right balance of those two considerations.

MR. NEWCOMB: Furthermore, do you see any -- do you foresee any problems with shifting a successful program for SO2 where the sources were not so strictly regulated prior to the allotment program being imposed, shifting that over to sources, which emit VOCs, where they have already had some significant technological developments, putting on all the technology, how they are going to operate under the trading program?

MR. GOFFMAN: Not really. I want to be clear about something. The design team, including the EDF members, did not initially come up with this program and say, well, let's just try to use the SO2 template and kind of jam facts on ground in this issue into

that template. We did sort of start from scratch in terms of analyzing all of the relevant issues including the ones that you just referred to and came to a very similar kind of design.

The reason I refer repeatedly to the SO2 program is that it provides a very close analogy to what the design team ended up with, if you will, and has also generated actual real world experience, but considerations like the one you raised were dealt with directly and evaluated directly and not withstanding differences, the design team and the agency concluded that even previously unregulated sources could benefit or could function well and benefit in a system like that.

THE HEARING OFFICER: Any further questions?

MS. MIHELIC: Is there any program out there similar to the one that's being proposed in Illinois that has been basically instituted against a group of sources within a small area, not nationwide, that has been highly regulated for use for VOM emissions?

MR. GOFFMAN: The one that I'm familiar with is the reclaim program for NOx.

MS. MIHELIC: But that is no longer a system?

It has been --

MR. GOFFMAN: No, NOx and SO2 are regulated by an existing reclaim program. I think that generally the NOx and SO2 sources -- and I emphasize the word generally -- match up with the profile with some of the sources covered here with VOCs.

They are not primarily utility sources. They are industrial sources from a variety of industrial sectors and a variety of sizes. They are in a small, small area. They are a relatively small number of sources at least as contrasted with the size of the acid rain program, and in some ways, the trading regime is more restrictive than this regime.

For example, there is no banking whatsoever. Yet, my understanding is that that program is functioning quite well both environmentally and from the point of view of the source's ability to continue to operate.

MS. MIHELIC: And they were highly regulated prior?

MR. GOFFMAN: Some were and some weren't. It was a mixed batch.

MR. WAKEMAN: I'm Jim Wakeman from Tenneco.

I'm a little confused on the comment 2 or one of the slides where you said it reduces compliance costs and the fact that it makes enforcement easier because none of the other layers of control that we have go away so the agency still has to deal with all of these other issues.

MR. GOFFMAN: I wasn't suggesting that -- when I suggested that it reduced compliance costs, I was referring to costs under a trading program relative to a different kind of program that purported to get the same increment of new or additional reductions.

So if you take it as a given, as I understand the air quality analysis suggests, that even sources in this program that have already made some VOC reductions still have to make more reductions, and therefore, the choice is do they make this new generation of reductions under a program like this or under a traditional command and control program?

This program will give those sources the opportunity to make that new generation of reductions at a less cost precisely because -- than

they would otherwise incur if they were making those reductions under a command and control program precisely because the sources can use emissions banking and emissions trading to reallocate the cost burden between and among themselves.

So that the more efficient producers will do more of their reductions and less efficient reducers will be required to do fewer reductions. So that's what I mean by reduction, by cost reduction.

As far as making compliance more efficient, the agency and the individual sources will not be involved in as an intensive dialogue even on an individual firm basis in writing the permit and assessing what each source is technologically capable of, but rather the sources themselves will be able to make that decision without requiring legal or agency intervention.

At the same time, the sources that are faced with a host of uncontrollable events that might in other programs push them into non-compliance will have a method -- an easy to use method to remain in compliance and therefore, will not have to be subject to compliance

intervention.

MR. WAKEMAN: But none of the other layers go away?

I mean, I think what you're saying is that compliance is easier with ERMS and other programs are not affected, but when I change an operation, I still have to go through the same permitting process and all of the other compliance issues that it entails?

MR. GOFFMAN: As far as I know, that's correct.

MS. SAWYER: That's kind of a broad Illinois regulatory question.

MR. WAKEMAN: Okay. Thank you.

THE HEARING OFFICER: Let's go to the back.

MR. CHARI: I am Desi Chari with Safety-Kleen.

Did the design team look at the advantages and disadvantages and what other ways they can give the state to minimize the impact of the program?

MR. GOFFMAN: I think -- I'm sorry to put it like this. That's too open-ended a question for me to figure out how to answer that.

MS. SAWYER: Yes. That's kind of a broad question.

MR. CHARI: I know I see all of the advantages of the program. What are the problems the design team looked at to see how it could be, you know, minimized?

MR. GOFFMAN: Two of the problems we looked at were so-called hot spots and the differential reactivity of different individual pollutants in the class that VOM regulated in terms of forming ozone in the atmosphere, different individual pollutants that are included in the class of VOM that are regulated.

If you go back to the report that the design team issued prior to actually drafting of the regulatory language, you will see a lengthy discussion of both of these issues.

Generally, we felt that ultimately the dimension of the reductions that would have to be achieved would pretty much preclude a hot spot occurrence particularly when you consider that economically, it's hard to imagine an economic scenario in which a source under a declining cap would generate so much activity as to actually

increase its toxic or VOC emissions.

We also took into account the fact that Title 3 of the Clean Air Act regulates toxic VOCs as toxics and they would be subject to MACT, M-A-C-T, standards.

In addition, we also thought -- and I'll put this generally -- that the report is more of a nuance that the ultimate dimension of the reductions, the likely activity and variety of sources in the emission trading market, would probably swamp the effects of differential activity, but we suggested that continued auditing and monitoring of those problems be established as part of the program.

I guess one other feature in terms of the market function side in terms of whether affordable transactable ATUs or access emissions would be available, there are specific features in the program. I forget that acronym. It's the alternative compliance market account.

We felt that was a device, sort of a public sector device, that would be available for allowing sources to purchase emissions reductions if they needed.

So as a guard begins what I would characterize as fears of the market not functioning like a market, that's a device that's available.

THE HEARING OFFICER: In your response, Mr. Goffman, you mentioned a report. I was wondering if that report was going to be part of the record or if it can be made part of the record?

MS. SAWYER: It is a part of the record. What he is talking about is the final -- I believe the final design proposal and it was one of the supporting documents that we submitted with the proposal.

THE HEARING OFFICER: Thank you. Are there any further questions?

Go head.

MR. TREPANIER: I'm Mr. Trepanier.

In looking at the problems of the -- that might arise under the proposal, was there -- and did the design team consider a socioeconomic forecast of the distribution of the loss of production that might likely occur from -- as a cause of -- as a result of shutdown of those that are operating on a smaller profit margin?

MS. SAWYER: This is something that we did

evaluate within our economic analysis. So that question would be better directed to the people who performed that analysis.

THE HEARING OFFICER: Who is going to testify to that, by the way?

MS. SAWYER: In part, this is going to be, hopefully, Cal Caze from Palmer and Bellevue and Sara Dunham from the agency also.

THE HEARING OFFICER: Okay. Thank you.

MR. TREPANIER: And maybe that's the second issue. In looking at problems, did you consider the possibility that under the proposed market system, there would be an increase of new polluters prior to the cap being installed?

MS. SAWYER: I don't follow this question. Could you --

MR. TREPANIER: There is a listing of what problems were looked at. I'm asking for clarification if there was a problem that was looked at.

MS. SAWYER: I guess I don't see how something prior to the system would be a complicated problem. I mean, that's something that is handled by existing rules and regulations how you handle new sources and

things like that.

MR. TREPANIER: Well, the rule -- I see that this rule specifically addresses allowing those facilities who could pollute VOCs and get their construction permit by 1999 to receive their first allotment by the year 2003.

Did the design team consider that as a market -- in designing this market that there was a force there in --

MS. SAWYER: That's a detail of the agency's proposal that Mr. Romaine is presenting testimony.

MR. GOFFMAN: To answer your question literally, we did consider it. My understanding is the intrinsic specifications of the air quality analysis addressing that issue. We didn't suggest that there was -- I don't think the design team concluded that the allotment to the allocation of these allowances would function as a significant economic force to accelerate the sighting of new sources, by certainly in terms of ensuring the integrity of the cap as a cap and then accounting for the ultimate emissions that have to be achieved, the role of new sources was fairly addressed both again in the definition of baseline and eligibility

for allocation.

We were assured by the staff we, too, would be addressed on the ongoing air quality assessment before and after the program was implemented.

MR. TREPANIER: Do you know -- when you were told, do you know if they had any information beyond the U.S. EPA model that was referred to yesterday?

MS. SAWYER: Mr. Goffman was not here yet, first of all, and that's really one of these air quality issues that he already explained was part of the state's process. So I'm objecting to that question.

MR. TREPANIER: Okay. Well, I just wanted to know -- I'm just going to the integrity, you know, of the design of the system, if it's including these factors, but I have another question that I would like to ask.

Did EDF have a specific responsibility involving the greater environmental community during this program?

MR. GOFFMAN: Did we have a responsibility?

We were not given that responsibility by anybody, but we did, in fact, communicate on a

fairly regular basis with Ron Burke of the American Lung Association and Rob Michaels of the Center for Environmental Law and Policy of the Midwest.

In all fairness, we did not always come to total agreement with those two groups, but we continued to communicate with them.

In addition, we were told of meetings that occurred between local and environmental groups and agency staff and concluded from that that in addition to communications with us, environmental groups also have direct input to the agency.

MR. TREPANIER: Okay. I heard that you heard of these meetings. Do you know who it is that -- was it someone at the agency who told you that these meetings occurred?

MR. GOFFMAN: I was told by someone at the agency and I was also told by, I think, Ron Burke at some point.

MS. McFAWN: And, of course, this proceeding itself is known as an outreach to the public.

MR. GOFFMAN: I mean, you know, one of the things that we were conscious of was not representing ourselves as a representative of other environmental groups because we didn't want to do anything that

would at some point be construed as somehow preempting the ability of other environmental groups to use the public participation process to represent their own views.

In other words, we didn't want to create kind of a whipsaw. We didn't want to be used as a whipsaw against other environmental groups that wanted to participate directly.

MR. TREPANIER: Did you see that there was a process for other environmental groups to participate directly?

MR. GOFFMAN: Well --

MS. SAWYER: This is a question that -- I mean, this is a procedural question on how Illinois conducts rulemakings and things like that and --

MR. GOFFMAN: Yes, but Bonnie, this is America, you know, and Illinois is, you know, required -- the constitution applies here too. I didn't think it was a -- I didn't think it was a risky assumption even though I wasn't familiar with the specific process.

MR. TREPANIER: I mentioned it because up to this point, there has not been an explanation -- there has not been an answer to the question of why

the agency had to use their own mailing list in 1996 or if they did.

Do you have any -- can you shed any light on that?

MS. SAWYER: He doesn't know the answer to that.

MR. GOFFMAN: I didn't know that and I don't know why they didn't.

MS. SAWYER: You don't know whether they didn't.

MR. GOFFMAN: I don't know whether they didn't, yes.

MR. TREPANIER: When there is a benefit realized from trading that's -- these benefits are a result during a -- when do the benefits result?

MR. GOFFAN: When do the benefits result?

MR. TREPANIER: Of a pollution trade. What's the benefit of a pollution trade?

MR. GOFFMAN: Well, just remember, it's important to see design elements of this program as integrated design elements.

Obviously, the benefit occurs from this program when emissions reductions begin to occur

and they occur as a result essentially of a cap and its legal implementation.

The virtue of a program like this or key characteristic of a program like this is that you get at least the environmental result you bargained for even if though trades even take place.

You get additional environmental benefits as soon as a firm starts to make the investment in making surplus or early reductions. That's on the environmental side.

Of course, on the economic side, firms start to do that when they feel that either they can eventually realize some economic value, even in the forms of optional flexibility, or just in the form of getting revenue from the trading market.

MR. TREPANIER: When the reduction occurs, in your understanding of how this market system would work, is the value -- is value on the economic side, too, that drives the overall public benefit of cleaner air, is that benefit accruing when the reduction is occurring?

MR. GOFFMAN: Yes, it is. I want to take some time with this answer because there are other theories of trading, which people suggest

that it is somehow trading itself, trading alone that delivers environmental benefits, that you can somehow trade your way to attainment.

One example of this is the Michigan rule or more generally the open market trading rule. This program does not depend on trading to produce its core environmental benefit. It's the setting of the cap that produces its core environmental benefit.

Trading then enhances the ability of the cap to provide environmental benefits, but the public doesn't have to depend on trading to occur or to occur in a certain way to deliver the core environmental benefit.

MR. TREPANIER: Now, when the -- when the trading enhances the environmental benefit, is that occurring because of the -- in your estimate because of a market force that there was a value to the polluter to reduce the amount of their pollution?

MR. GOFFMAN: Yes.

MR. TREPANIER: And does that value -- is that value created when -- when is that value created?

MR. GOFFMAN: At least in a latent sort of

way, the value is created as soon as the cap or constraint is set.

The fact that it can affect more cleanup than required could be valuable to somebody is when the potential value is perceived by a firm making a decision as to whether or not to invest in that additional clean up.

MR. TREPANIER: In your opinion, if, in 1999, the reduction that's being sought is made, will the goal of meeting the Clean Air Act have been accomplished?

MS. SAWYER: This is an air quality question again. It's a state planning issue. I'm going to object to it.

MR. TREPANIER: The witness was a -- said he was an expert in the Clean Air Act for 12 years. It might have something valid, you know, to look at.

THE HEARING OFFICER: Mr. Goffman, can you answer the question whether or not --

MR. GOFFMAN: Yes. If, in 1999, the -- my understanding is the quantity of reductions that are going to be required in 1999 will contribute to ongoing progress towards attainment, but that between 1999 and 2007, additional reductions will

have to be made to get to attainment.

And the Clean Air Act says that that, if you will, gradual way of getting to attainment over time is a valid way of getting to attainment. So to answer your question literally, it's in compliance with the Clean Air Act.

MR. TREPANIER: Is there an environmental benefit beyond compliance with the Clean Air Act once attainment has been reached, if attainment -- hypothetically, if attainment were reached under this system, is there any environmental benefit that results from continued trading?

MR. GOFFMAN: I could -- I would surmise that some of the investments in innovation, environmental innovation, would be incentivized through a trading market or the opportunity to create earlier reductions and bank them could involve process changes and technology changes.

It would have ancillary environmental benefits. That's the nice thing about innovation. It tends to, if you will, overachieve relative to the specific bogey.

MR. TREPANIER: Is what you are saying is that there is something inherent in what this trading

system being proposed that after attainment is reached, that further reductions in air pollution is going to occur?

MR. GOFFMAN: Well, let me just guess that one scenario might be that even after attainment is reached, because there will be ongoing maintenance requirements, prudent sources would continue to maintain, for example, a bank of extra reductions just to give them on-site flexibility to deal with economic change.

Those bank reductions would represent reductions in excess of those that are required. So in kind of a literal or mechanical way, that's a scenario with which there would be extra reductions.

Let's be careful not to dismiss the primarily environmental value of getting to attainment.

The fundamental proposition that I'm arguing for is that this way, this integrated system of capping trading emissions or capping emissions and implementing the cap trading permit system, gives the public a higher degree of assurance that we will get to attainment.

MR. TREPANIER: Would you say that the

significant value of the program is reaching attainment?

MR. GOFFMAN: Yes.

THE HEARING OFFICER: Do we have any questions?

MS. SAWYER: Could I take a moment to ask a question?

THE HEARING OFFICER: Sure.

MS. SAWYER: Isn't it true that the cap would remain in place even after attainment is achieved?

MR. GOFFMAN: That's my understanding.

MS. SAWYER: And wouldn't this provide the ability to maintain the air quality standard?

MR. GOFFMAN: I think it would be indispensable to maintain the air quality standard. Assuming there will be continued economic change within the covered sector under the attainment cap, trading will probably continue to generate a certain kind of incentive to invest in additional clean up required of some firms.

MS. SAWYER: So to clarify that a little bit --

MR. TREPANIER: I have an objection.

MS. SAWYER -- trading would --
MR. GOFFMAN: Bonnie (indicating).
MR. TREPANIER: My objection is that previously, the agency has limited this witness to not having knowledge about what else the agency is doing, but yet she is trying to elicit testimony that continued use of this market would help the state of Illinois continue in attainment. I think that's fundamentally opposed to what her earlier limitation of this witness was.
MS. SAWYER: My question is of a different nature. I'm not suggesting any specific air quality aspects of this. I'm just saying that the trading program, in general, since it remains in place, has the ability to maintain a standard.
It's not a specific air quality question. It's a general market question based on Joe's understanding on --
MR. TREPANIER: Well, there was a second question she asked beyond, was the cap going to remain in place. The answer was yes and then another question was asked.
THE HEARING OFFICER: I think I'm going to allow the question as long as it doesn't get to

whether or not the agency is going to achieve the air quality goals that are presented to it by ROP, I believe, and the Clean Air Act.

If you want to ask a general question such as will the trading program after attainment fill the rate of reductions through emissions or retain reductions or achieve, I think that's something you can ask him.

MS. SAWYER: Okay. I think he already answered the question.

MR. GOFFMAN: I think basically it's a mechanical matter of will the cap remain in place? I understand that to be a provision of the program. If that cap is in place, it's primary affect and continuing limitation on emissions and, if you will, the secondary affect in banking and trading will probably continue to obtain --

MR. TREPANIER: Would every limitation that's affected under this program be contained within a Clean Air Act operating permit?

MS. SAWYER: I'm sorry?

MR. GOFFMAN: Could you --

MR. TREPANIER: Are there any limitations on -- as the word was just being used -- these

limitations that are placed via this system, are any of those limitations not going to be included in a Clean Air Act operating permit or federally enforceable state operating permit?

MS. SAWYER: This is, again, an agency question on how we're going to handle permitting of this program.

THE HEARING OFFICER: Who would be best to answer that question?

MS. SAWYER: Don Sutton probably.

THE HEARING OFFICER: Do you want to reserve that question for Don? He may be a better person to answer that question.

MR. TREPANIER: Okay.

MR. BURKE: I'm Ron Burke with the American Lung Association.

Is it your understanding, Mr. Goffman, that this program would be one piece of an overall plan to achieve attainment in compliance with the Clean Air Act?

MR. GOFFMAN: That's my understanding, yes.

MR. BURKE: Do you think that the proposed program allows for adequate public scrutiny of compliance?

MR. GOFFMAN: It depends on what you mean. I think in some respects, it provides the public with a better opportunity to scrutinize compliance that exists under traditional programs because compliance is defined in terms of actual emissions and affected firms are required to report the measurement of quantification of those emissions.

That's something that is not -- typically not available to the public. So I think in that respect, ultimately what you are worried about is emissions, how much pollution is occurring and I think this gives the public additional tools that it doesn't currently have.

It's kind of like if you are familiar with the CERCLA Title 3, that's C-E-R-C-L-A, community right to know, mechanically, the public gets information as a result of the -- just the operation of this program, it's similar to that.

MR. BURKE: I have a couple of other questions.

Given that increases in toxic VOM emissions are basically undesirable and given that it's unlikely, I think you pointed out, that this proposed program would contribute to such increases

and given that MACT is years away for certain sources, do you think it would make sense to place a limitation on the use of ATUs for increases in toxic emissions?

MR. GOFFMAN: That question would be easier to answer when we have more information from the agency about what the total cap is going to be over the graduation periods of this program.

My sense or my guess is on the information that we were given over the last few years that ultimately this program, as we approach 2007, will have to require fairly substantial VOC reductions and then will be faced with the choice of whether or not the scope of VOC reductions there may actually -- it's an ancillary benefit. It's hard to know unless you know how many reductions are designed into the actual numerical cap.

MR. BURKE: I have one more question.

Given that the direction trades, sales, could potentially impact the ozone reducing potential of VOM emissions reductions, that is, reductions that occur in the south of the metropolitan area, for example, might tend to reduce those or more, given the winds are out of the south or southwest on high

ozone days, does it make sense to monitor the directionality of the trades over time to make sure that this is not having an adverse impact on the overall benefit of the program?

MR. GOFFMAN: It might. My assumption is is that information will be right there up front in the tracking system. It will be required to implement this program. You know, the agency and the public will have ready-made database from which we can fairly easily generate that kind of analysis.

Again, once that analysis is done, it will have to be mapped against the size of the reduction that's being called for and the timing of that reduction, but I think that data will be there.

MR. BURKE: Thanks.

THE HEARING OFFICER: Tracey?

MS. MIHELIC: You stated earlier that with respect to the question on caps that you don't really know yet because you don't know what the actual emissions from hazardous air pollutants are going to be.

When Title 4 was promulgated or implemented, was U.S. EPA or were U.S. EPA and

Congress aware of what the emissions -- the actual SO2 emissions -- were from each facility? Had that -- was that not part of the process of promulgating the program?

MR. GOFFMAN: Yes. As it happened, there was awareness of what the emissions were in each facility, that's correct.

For example, the OTC, the Ozone Transport Commission of the northeast states, designed a program very similar to this program and the acid rain program and the OTC, in effect, had to go out and collect information. This was a NOx program. They had to go out and collect the information that was being generated by the sources.

MS. MIHELIC: It was collecting it as it was developing it?

MR. GOFFMAN: Yes.

THE HEARING OFFICER: I think I have a few questions.

My first question is do you believe that in order for a trading program to work that the -- there is a mandatory involvement connected to that or can it still work if it's a voluntary

involvement?

MR. GOFFMAN: You can have -- I think that would affect the environmental performance of the program.

You could try to specify, say, an emission is standard for any individual source and then say if these sources wanted to trade, they could go through an administrative process on a source-by-source, case-by-case basis, and generate something called emission reduction credits and trade them. That kind of trading has been part of the Federal Clean Air Act policy since the late '70s. In many respects, it's been pretty unsuccessful.

So I think people who want to expand the use of trading, if regulators want to expand the use of trading, they should try to avoid using that example.

The approach this program takes, at least on a literal basis, it doesn't mandate trading. It simply says that we are not going to express compliance in terms of describing a particular process and technology. We are just going to tell each source what its initial emissions -- total

emissions target is for the ozone season and then the source can either trade or not.

But if you want to get all of the benefits that I have tried to describe, you can't just try to layer trading onto any old compliance program. You have to think holistically about how you define compliance and how you implement and how you trade. This program and the process of designing it answered all of those questions simultaneously.

THE HEARING OFFICER: You mentioned earlier this morning about the fact that the trading program lessens or stops the need of the use of -- I'll use the term general variances -- and you think that's --

MR. GOFFMAN: I think that's the case, yes.

THE HEARING OFFICER: Then, I just kind of want to make a summary statement and see if you can answer it as to whether it's correct or not. I'm trying to pinpoint ADF's support.

I think what I'm saying here is that the Environmental Defense Fund supports the concept of a trading program to achieve pre deductions, but it's not saying that the program necessarily is going to meet air quality standards or what is necessary for

attainment in Chicago?

MR. GOFFMAN: Yes, that's correct. Whether those things occur have to do with how many emissions reductions are assigned to this sector in the SIP and how well the rest of the SIP works. So you can't -- that's something that's not intrinsically in control of this design.

THE HEARING OFFICER: I have one last question.

Earlier, you were talking about toxic VOMs or VOCs when Mr. Burke brought up the topic. I thought you also stated that they would be regulated on different programs?

MR. GOFFMAN: Yes.

THE HEARING OFFICER: How is it that you -- I mean, does the trading program or this other program mesh or not mesh?

MR. GOFFMAN: My understanding is that proposed rule here provides that the -- that notwithstanding a source's holding of ATUs for VOMs, any toxic requirement, either existing or subsequent, supersedes the authorization to emit that the ATUs might otherwise create.

So if the MACT standard is tighter,

that's the one you have to comply with.

MR. DESHARNAIS: And the MACT standard would be technology driven --

MR. GOFFMAN: Yes.

MR. DESHARNAIS: -- and not a cap situation?

MR. GOFFMAN: That's correct. Now, my understanding is that the U.S. EPA is trying to develop some flexibility alternatives for implementing the MACT standard, which could in some cases leave some individuals, as we expressed, in mass quantitative terms, but other than, that I'm not familiar with the specifics.

MR. DESHARNAIS: I have one additional question.

Do you believe that the seasonality of the program will in any way affect it positively or negatively as far as its functioning of the trading program?

MR. GOFFMAN: I don't think it will have an effect one way or another.

MS. MIHELIC: I have a follow-up question.

When you are talking about the MACT standards and those being technologically driven standards -- I guess there is a two-part question

here.

Isn't the purpose of this program to avoid technology driven standards by using the market-based approach?

MR. GOFFMAN: Yes.

MS. MIHELIC: Isn't it possible that since some MACT standards won't be promulgated until after 1999, sources will be required to use the market-based approach, but yet then still be required to implement technology driven standards?

MR. GOFFMAN: It's possible. I think that that's something that could procedurally be ultimately resolved sort of in a dialogue with the EPA.

I could certainly imagine a circumstance in which -- that it would be possible that for some sources, the VOM reduction requirements might be actually more stringent in that instance, in which that case I find it hard to imagine that the agency would not take cognizance of that.

MS. MIHELIC: Currently, the agency -- the U.S. EPA is -- when you are referring to the agency, you mean the U.S. EPA?

MR. GOFFMAN: The U.S. EPA.

MS. MIHELIC: There is no mechanism right now in which they are evaluating market reduction-based approaches with the MACT standards?

MR. GOFFMAN: No, but my understanding is that in terms of state delegation of implementing Title 3 programs under the Clean Air Act, there would be procedures for that.

MR. TREPANIER: In your support for this program, do you see that part of that support based on this program could be used in 1999 to accomplish further reductions in VOC emissions?

MR. GOFFMAN: Yes, yes.

MR. TREPANIER: Do you have an opinion if accomplishing reductions within the next period, beginning in 1999, would be of a less expense to the people of Illinois or would it cost about the same as -- and I'm not talking about the expense of the pollution control equipment, but the expense of making the work.

Will it be cheaper on the second -- if there is a second set of reductions?

MR. GOFFMAN: Yes.

MS. SAWYER: I think that's a little speculative. There might be some general area in

which Joe can provide an answer, but in terms of what the economic impact of what further reductions may be, we don't know that absolutely. We have some --

MR. TREPANIER: Okay. Well, specifically --

MS. SAWYER: Joe can go ahead and answer the question to the extent of a theoretical basis, but I think that's the extent to which he can provide an answer.

MR. TREPANIER: Do you believe that establishing baselines is a significant cost of operating this program?

MR. GOFFMAN: I believe establishing baselines is a significant one-time startup cost of setting this program up.

Using the acid rain experience as a direct analogy, the actual year-to-year costs of operating this program are mind bogglingly cheaper than operating on a year-to-year basis alternative kinds of programs.

MR. TREPANIER: When the -- when this whole system -- when we're receiving a benefit from the system and we're receiving the benefit of the system, which I'm going to say is a reduction in the level

of pollution, is that to -- under the system as it is designed, when will that occur?

MR. GOFFMAN: It will occur as soon as the first year of reductions are required.

MR. TREPANIER: Okay. And if there are any other innovations that are accomplished -- pollution control innovations that are accomplished under this trading system, would that -- besides the period when the reduction and levels of ozone is allowed, the allotments are reduced, that's going to drive -- if I'm understanding your testimony -- that's going to drive innovation?

MR. GOFFMAN: Right.

MR. TREPANIER: -- in the system?

MR. GOFFMAN: Right.

MR. TREPANIER: When innovation is driven at any other time when the system is operating, would that be when there is someone standing who has been waiting to produce an item that will require the emission of VOCs and that person is waiting to create their item and wants to purchase an allotment?

MR. GOFFMAN: That's one way. I mean, if there is a new use of these materials or a new actor that wants to use them coming up against the

constraint of the cap, that could definitely drive the search for innovation to accommodate that.

There are all sorts of -- even with existing users and existing uses, the constraint of the cap coming up against changes, fluctuations, and economic activity existing firms will -- and plus the design to minimize costs will also drive innovation.

There is no particular method that I know of for sorting those different innovation drivers, but both are important.

MR. TREPANIER: Okay. When -- when you're -- those innovations drivers that you mentioned, were those connected to this market system?

MR. GOFFMAN: Yes, yes, absolutely.

MR. TREPANIER: I'm not real clear, though, on when the corporation wants to save money. I understand, you know, that it is possible to save money by reducing pollution, but what about -- what under this market system allows someone to save money that's going to drive an innovation to a trade?

MR. GOFFMAN: Well, if you come up with, let's say, a new process that significantly

reduces VOC emissions beyond what's required under the cap or under your initial allotment, one strategy that a purchaser of that process or a user of that process can adopt is to apply that process and then sell the excess emissions to another source under the cap and the revenue basically allows the seller to finance, in whole or in part, its reduction strategy using the new process.

MR. TREPANIER: Okay.

MR. GOFFMAN: So that the net cost of the company might be rather low in that scenario. At the same time, the purchaser of the surplus reductions is presumably making the purchase of those reductions because the net cost of doing that is smaller than making the reductions on-site.

So both actors in that scenario are responding to a cost minimization imperative while specific to meeting their emissions constraints.

MR. TREPANIER: So that's a -- that was a theoretical -- you are explaining a situation where somebody meeting their reduction, had their allotments reduced, and they need to meet it, it's going to drive innovation?

MR. GOFFMAN: Right.

MR. TREPANIER: Secondly, a corporation, is this true, a polluter may reduce their pollution in order to free some of their allotments to sell to someone who might want to begin polluting?

MR. GOFFMAN: That's correct. Remember, if you will -- environmentally, as long as there is only a fixed number of allotments, i.e., there is a cap, essentially from a VOM control point of view, the atmosphere is different to whether any different given set of allotments is used to emit VOM by an existing actor or new actors.

That's one of the key features of this program, as I understand it, that new sources have to come in and purchase allotments from the existing pool. Their entry into the economic market does not expand the cap.

So to define the environmental objective here as VOM-specific, which I think is fair to do, then, you are encouraged to do that, and any given increment of ATUs reduced can be used by a new actor or an existing actor.

MR. TREPANIER: That amount with -- under trades, where under a steady cap, then, you are not suggesting that these trades involve an increase

in air quality?

MR. GOFFMAN: These trades -- no, it's the cap that provides the increase in air quality.

MR. TREPANIER: What we would just be seeing changing, then, would be the economic forces -- is what we are seeing changing, then, the economic forces that are able to control this emission of pollution?

Is it the emitter who has a higher profit margin or has a profit per VOC emitted that will come to -- be driven to purchase in the market?

MR. GOFFMAN: Possibly, but yes, you will see that trading itself is essentially a reallocation of economic responsibility. I can't -- I haven't thought enough about whether that reallocation of economic responsibility will favor firms of one profile as opposed to another.

It may favor firms that are relatively uncontrolled today plus the marginal cost of production may make the net sellers. It may, on the other hand, favor firms that are, quote, unquote, relatively clean.

It's not clear -- I don't think there

is any evidence, and I know that people look for it, but I don't think they have found it, that these kinds of trading systems specifically favor economic actors of a specific economic profile.

MR. TREPANIER: Do you think the proposal that you have come up with has an application if it were spread out over a greater number of the sources, that if we brought the level down, could that level be brought down to, say, ten percent of where it is now and would it be workable in your estimation?

MR. GOFFMAN: In theory, yes. It could be -- a system like that could be applied to any level of emissions reductions and I say that because the experience of the Clean Air Act is that the supply of technological innovation to meet increasing pollution constraints, whether they are imposed under programs like this or imposed under command and controlled programs has been there.

So while people might argue from the point of view of existing technology on January 22, 1997, a cap below a certain level is not feasible depending on how well you mobilize the forces of innovation in the design of your program, things that appear to be unfeasible today can now be

feasible at some future date and readily affordable.

That's one of the reasons that designing for innovation is such a critical feature of environmental programs like this.

MR. TREPANIER: For efficiency, I offer to submit any future questions at a later time.

THE HEARING OFFICER: Let's go off the record.

(Whereupon, after a short lunch break was had, the following proceedings were held accordingly.)

THE HEARING OFFICER: We are back on the record in the afternoon after lunch. I'm turning it over to Bonnie Sawyer of the agency for the next witness.

MS. SAWYER: The agency would like to call Roger Kanerva.

(Witness sworn.)

WHEREUPON:

R O G E R K A N E R V A ,

called as a witness herein, having been first duly sworn, deposeth and saith as follows:

MS. SAWYER: Would you please tell us your

name?

MR. KANERVA: My name is Roger Kanerva. I'm the environmental policy advisor and director at the the Illinois EPA.

MS. SAWYER: Mr. Kanerva, could you tell us a little bit about your responsibilities as environmental policy manager?

MR. KANERVA: It's really a combination of activities that the environmental policy operation is responsible for.

One is agency-wide strategic planning that we do to develop the overall direction our programs are going to take.

Another aspect is these market-based approaches that we have been working on as a policy innovation. In fact, our work on this emissions reductions market system developed out of that very innovation.

There are a number of other special activities. We have been participating with the market system development for the OTAG process. Bharat and his crew and the rest of us are emersed in it up to our ears.

Then, we also have some agency safety

activities that we are responsible for and also the chemical safety emergency response effort.

MS. SAWYER: Mr. Kanerva, could you just tell us a little bit about your educational background?

MR. KANERVA: I have a Bachelor's and Master's degrees in watership management from the University of Arizona.

MS. SAWYER: Please proceed with your presentation?

MR. KANERVA: Okay. What we thought we would do, this is a complete package system here that we are bringing in this proposal. We thought it would help to go through sort of a walk-through of the whole proposal to set the stage for them coming back, as Bonnie mentioned earlier, and taking specific important parts of this and having the presentations by the staff here to go into this in a lot more detail and to work through some actual application examples and really get down to the nuts and bolts of this.

But it is a big system. There are a lot of component aspects to it. So we thought it would be worthwhile to do that overview.

We also wanted to say just a few things

for the record about the process that we went through to develop this because it has been a very involved and thorough process as far as we are concerned and there have been a lot of opportunities for participation along the way and there has been a lot of participation.

So we are going to take a quick look at the development process and then get into the system itself.

The presentation that I'm giving basically is organized along the same lines as the testimony outline that you have.

THE HEARING OFFICER: I think there are some more in the back.

MR. KANERVA: I think there are copies of these actual overheads in the back. There are a few points made here and I would like to sort of expand on some things.

Time flies. We actually started working on all of this stuff back in 1992. Bharat got a team of us together and we put together a little proposal and filed it with the U.S. EPA to get some special incentive funding that they had.

Based on what we have done as this

pre-feasibility study work. We wound up doing a lot of literature review in looking at the acid rain program. I think some of those points have been brought out already by Joe Goffman.

We spent a lot of time out talking to the South Coast folks and studying what they were developing. Back in that time frame, they didn't have their system developed yet for NOx and SO2.

But some things came out of that pre-feasibility approach that we carried right into the feasibility work that was the federally funded feasibility work and that's the three things I have listed here.

The seasonal control period that we were -- that there might be some real advantages to moving away from the sort of annualized control approach and targeting it when the problem really occurs with ozone, getting on an actual emissions basis as the control focus for the regulatory program rather than a break limitation type of approach where you don't really have a good fix on what the real emissions are that you are going to wind up with through your regulatory program, and the cap and reduce as needed, emissions cap in reduction

approach, really started to stand out in people's minds as something we should seriously study.

That led us into the feasibility study work. We actually kicked that off with a big conference that was held up here in the Chicago area in '93.

Some of the industry participants will probably remember that. It was well attended with public interest groups and it brought quite a few industry people and consultants and what have you just talking about emissions trading and what the possible benefits and challenges might be.

The findings that came out of that study work, which is documented and available, we made all of this available to people, was that there were more cost effective emissions reductions that could be achieved through a trading program, that there were incentives to act sooner and be innovative, sounds like some things you heard about an hour ago or two hours ago, and that we were approaching the limits of what we could do effectively with command and control regulation, and that there was a greater likelihood of reaching attainment if we went to market approach.

That led us to setting up this emission trading design team. It actually went through a couple of phases.

Initially, we thought Bharat and his air quality gurus thought we were going to be doing some serious reductions of NOx. We may still wind up doing that, I suppose, but we thought we might be doing that actually in the nonattainment area up here as a part of the control program.

So we started in June of '93 to design a NOx emissions market system and got to the point of actually having a proposal out for public review. That was in September.

Then, low and behold, the air quality modelers surprised us in December and they said, whoops, NOx reductions don't help. They actually hurt in the nonattainment area.

So we switched over looking at the VOC or VOM market system approach in '94 and then went through about a year's development process there.

There were four industry participants that were added to that group -- Abbott Labs, Caterpillar, Corn Products, and Amoco -- to bring in the VOC perspective. Commonwealth Edison had

already been on the team prior to that because of their NOx emissions. So that's the team that actually stayed in place and worked through the rule development and helped us with that process all along.

It culminated -- their work culminated in the proposal that Bonnie Sawyer had mentioned. I guess this is in the record. It's the final proposal of March of '93. That was the actual sort of work product of the design team.

Anybody and everybody who has had any interest in this has access to those and has copies of them and it has been widely disseminated and discussed.

There are a lot of things thrown up here, but we wanted it real clear and wanted the policy mandate to be proceeding with this market system, which led our director and Bharat and the rest of us to actually work on authorizing legislation, which tends to get overlooked occasionally in these discussions we are having, but this clearly does put the responsibility on the agency to proceed with the development of the market system. It's Section 9.8 of the act that

was amended.

It required us to design an emissions reductions market system and, in fact, when we testified before the Senate and the house committees on this legislation, we actually described this proposal to them and explained how we had developed it and said that that was going to be the basis for the actual rule development work that would go on.

It authorizes IEPA to propose and the board to adopt rules for the ERMS and it also includes an express legislative authorization for sources to be able to exchange trading units, which in some other state programs, as they were developing their programs, there came some confusion on whether or not there really was authority to be able to trade across sources, which has not been traditionally how the laws have been set up to make sure there was no question, we actually put that provision in the amendment to the act.

A related agreement among the parties, the legislation did go through with certain assurances, which are mentioned -- have been mentioned in various portions of our testimony or what have you.

There was an agreement among the folks that supported the legislation that we would try and have a cooperative sort of developmental process to work out the rules.

We would have open review of the different drafts that we developed and everyone would have sort of a crack at helping design and resolve as many of these issues as we could before we brought it up before the board.

We wanted to continue to refine our air quality strategy. I think that's a really important point. I'm sorry I had to miss yesterday's hearing. I assume, Bharat, you maybe brought this out, but the Air Bureau basically made a commitment to people as we developed this market system rule, that we would work on the air quality strategy concurrently and, in effect, when this got filed, they would know what the air quality plan was going to be. Otherwise, how could they make their decision on this market system?

The air quality approach that finally got adopted was what you heard described yesterday and it was touched on today as this phase approach and this first reduction requirement.

We have kept to that and people do know where they stand at least to the extent that we can define it.

We agreed to develop an alternative compliance market account approach. You heard about the ACMA, you heard that mentioned already. That is an important enhancement to this system that was not in our design proposal.

It came up as the legislative discussion was taking place and we are going to devote a segment 11 of our more detailed testimony to explaining what happened with that and why it was done, but it represents kind of an insurance pool or a safety net for participants in this system so that they can access it if all else fails.

We would do more work on the enforcement 17 provisions and some of the implementation aspects of this because there were some serious questions when we left off with this proposal about how do you coordinate all of this with Title 5 permits.

We don't want to create a bunch of duplicative reporting. We want a system that's all blended together. So we agreed to do that and I think the system that's been filed before the board

does achieve that.

I want to emphasize a seven-key policy feature that is really behind how this whole system is put together. If these make sense, then, a lot of the nuts and bolts of the system really tend to just fall in place.

The first being the post-RACT, that this system applies beyond the RACT controls. That has come up. I heard that several times this morning. There were some participants who raised that.

That was done after a very long, thorough discussion of the importance of keeping the RACT control structure in place. What it does is it directs the issue of what happens if you get a bunch of emissions to come out in a particular point in time. It's this peaking question that kept coming up as one of the possible side effects of this program.

Our partial answer to that is, well, you will have this sort of steady annualized RACT control program that stays in place. That's sort of our push off point so that we won't all of the sudden have a bunch of emissions occur when we don't want them to.

The seasonal control, rather than the old annualized approach, the five-month season that we are setting up as the control period, really, kind of let's us put the -- do the more cost effective approach right to dealing with the air quality problem.

Phased emission reductions, obviously, that's the whole strategy behind how the air quality aspect of this will be done. It builds in MACT. That was a major question that came up as we were designing this system. Is it going to wind up resulting this trading of air toxics and people trading out of their MACT technology standards?

We finally decided there is no real answer to that that works other than no. Just put MACT in place. There's a federal hazardous air pollutant program, apply it, and that's the answer the nation selected for controlling toxics.

It's what should be applicable in Illinois, but interestingly enough, the reductions that take place in MACT, that they are beyond the minimum requirement for the VOC control program, they can take credit for that, trade it with people, and get some value from it.

Participation thresholds, it became very clear after Bharat and I sat through numerous hours of hearings out at South Coast as different sources described some of their concerns that South Coast is still trying to work out, but there is some point at which it's just not efficient to try and regulate some of these emissions in sort of a total source sense.

We really settled on this ten tons as kind of a practical boundary line that still gives us the amount of reductions that we need. There were some arguments that maybe it should go much lower than that and we just weren't convinced that that made sense.

A flexible market structure, we think we have left about as much flexibility that we can and still be responsible, but we still have the performance assurance that we need in there to get the system to be accountable.

Now, let's see if I can keep this from being backwards. This is as fancy a graph as we get today. This is a culmination. I thought it might be helpful. There are an awful lot of provisions in there. As you start to work your way through it, you

tend to get a little bit bogged down in how the basic pieces fit together.

So I thought it would be helpful to put just sort of a flow chart in there about how the whole system plays out without worrying about all of the specific details initially.

We start it off with taking -- having people that will be participants in the system file their applications for January 1 for what I will call participating sources.

One of the features built into this, which is something also that Bharat worked out with people, is that in the first 120 days, I think it is, 14 after people's applications are in, we make what's called a preliminary baseline determination in order to give people as early a read out as possible what their starting point is going to be in this system so they can start to figure out their compliance strategies real quickly rather than wait until later on when their permits actually get modified or issued.

Then, there will be a period of time through '98 and probably actually stretching to '99 a little, that the actual Title 5 or CAAPP permits

would be issued or modified depending on the status for our source.

The requirement to come in for a transaction account is actually 30 days prior to the first season and the first season for having allotments in place is 1999 in the way we set the system up.

The next event would be the actual seasonal emission report. One of the things that we were asked to do was coordinate these two -- completely coordinate some of the recording process for these two systems and we have done that by having 13 the seasonal information just be a component that's filed early of their annual emissions report already being filed with the agency.

This reconciliation period is a time in which people could figure out if they need to do some -- seek some trading units in the market in order to work out -- meet their compliance requirements. The compliance -- actually, the compliance decision would come at the end of each calendar year or at the end of December.

We actually do have to make a milestone demonstration. I guess it's important to

say that somewhere along in this process. It's not actually going to be part of the market system, but Dick Forbes and his staff and everybody has to figure out if we have made the amount of emissions reductions that we were looking for in order to get the three percent ROP for each year in the 90 percent target.

Then, we will put together our annual performance review report by May of 2000, the first year after the ozone season. I'll try to say a number of things about that because I think there were some questions that got raised earlier about tracking of trends and all of this and that will be our answer on how we do this report.

We have one question mark on here, which Bharat has promised he will resolve for everybody I guess sometime this year, and that is will there be some sort of Phase 2, there probably will be, and what kind of reductions might be involved with that.

Okay. I'm not going to hit on every one of these points or we would not be able to get through this in time, but I'm just going to mention a couple of things about what we have outlined here of what the specific provisions of the proposed rules

are and then, as I said, we are actually going to go back and pick up the details of certain parts of this.

An allotment trading unit is sort of a key definition obviously. What size do you set it at? We actually spent quite a bit of time talking about all of that. In the acid rain program, the SO2 program, since you are dealing with really huge amounts of emissions, they said it's as high as a ton, but when you are dealing with smaller sources that need a finer increment of emission to be able to get down to, we thought it needed to be quite a bit less than a ton. At one point, we even looked at 100 pounds and kind of convinced ourselves that maybe that was too small.

We did reject out of hand that had no further discussion of the one pound for every unit that South Coast had. Bharat and I just -- that was too much for us. So people seemed to be pretty comfortable with that size.

I have listed the names here just to mention them for the folks that would really be in this system, the participating sources, general participants, new sources, and special participants,

and I will touch on those a little bit later.

We think we have covered all of the possibilities here. The participating sources are basically the existing folks that are out there that will be getting allotments and et cetera. The new ones will come in after the first season.

The general participant is something we have put there really as a result of input we got from kind of entrepreneurs, people that thought they would really be able to help make this market work, for instance, in sort of a broker role where someone might want to have a transaction account and essentially as a service take care of some of the market activities for some of the participating sources or go out and find some emissions reductions themselves and kind of work with it that way.

Special participant is to try and take care of something that has really come up in each market program. There are always some folks that will get access to allotments that simply want to retire them and as an air quality benefit kind of issue.

We had a concern about all of the

complexities of getting transaction accounts and getting all set up in the system and then just taking some ATUs and retiring them and that's all you do. So we've set up sort of a special simplified approach for that. They just register with an agency, basically. They don't get a full account.

Emission management periods, the control period is the seasonal allotment period, it's May 1 to September 30. It's that five-month period followed by what we call the reconciliation period, a three-month time frame for sources to basically figure out and resolve any remaining compliance issues.

Now, this is one of the really important flexibilities about this system that I think gets overlooked on numerous times. Now, folks, you've got three months after you find out where you stand with your emissions or if it's a couple weeks after the season to calculate it, you've got two and a half months to take advantage of work within the market and make whatever arrangements that you need to make sure you are okay on the compliance perspective.

Then, it lists certain source responsibilities in there for -- depending on what

category of source you are, which we will cover later.

Applicability, participating sources are obviously the biggest piece of this picture when we start and it leaves off with probably the most important point that was driven home to us by certainly the regulating community. As best I can tell, I think everybody was pretty comfortable with this, and that is, there ought to be sources that are required to have a cap permit. They are the ones that are going through all of the steps of putting together the more facility-wide or source-wide type of permit, meeting all of the federal regulations and requirements for doing that.

The more that was discussed, they are the ones that have the annual emissions reporting and everything to go with it. So we were pretty much convinced to connect it to the cap permits and then the seasonal baseline, seasonal emissions of ten tons starting in '99 is kind of the -- that's the level we have been talking about with people going clear back to the proposal itself. It's one that people seem to have gotten pretty comfortable with.

A key aspect for the U.S. EPA in our

discussions with them is this point about subsequent increases. This isn't a one-time decision and never revisited. So if somebody is at eight tons in '99, but did not come into the system, but subsequently goes to 12 later on, they actually have the responsibility to get in the system and be a participant unless they take one of the other outs of some kind. It does bring people in if emissions go up so you don't wind up messing up your reduction strategy.

There are a couple of exemptions put in here. I guess we will talk about that in a little bit more detail later. These came specifically at the request of some of the participating regulating community folks, industry folks.

One is an opt out, if you will, and you take a limit of 15 tons per season. Some folks just say, well, look, your number is ten. We're at 14. We don't think there is any problem. We're not going to go any higher. Gee, couldn't we just get out of this somehow or another? We would rather not do it.

We've been kicking that around. We thought, well, if they are willing to put a cap to assure us their emissions will stay there, why not

give them that option?

The same way with the 18 percent, some sources -- I can remember the meeting where someone stood up and suggested this, and then it got a lot more discussion. They basically asked Bharat, look, if we're going to make -- to do any kind of reduction, it's going to take 25 percent -- it's going to result in 25 percent if we put on some certain kinds of control on here. If we do that one time and we do it right up front, can we just sort of be done and excused from this whole process?

So we kind of came up with this 18 percent approach. Obviously, that's six percent more than the 12 percent reduction, but if they're going to make -- if they're going sort of have an early opt out, we ought to get a little bit of an air quality benefit for it, an emissions benefit for it.

So we settled on the 18 percent number. Also, that sort of moves them into the next realm of reduction, if you will.

New participating source where one starts operation after May 1, we have used the same -- coordinated this with the same insignificant

units or activities, definitions and decisions that are made for the cap permits.

This is -- this question about startup malfunction or breakdown emissions came up numerous times. Are they in? Are they out? How do you account for them? The decision that finally is reflected in this proposal is that if -- if a source's permit allows those things to take place, then, we won't have them as part of the emissions that are controlled by this system.

Seasonal emission component, the proposal gets into the -- describes when they do submit the seasonal information and what information is required. Essentially, it's done in two different categories of folks. If you have over ten emission units, then, you can file at the end of November. If you have less, then, you can file at the end of October. That's because the reportings are a little more complicated for the sources with additional emissions.

As I mentioned earlier, in that overall flow chart, it all starts off with the applications being due January 1, 1998, with a further provision for certain new participation. Then, there is this

key point about the IEPA making a preliminary baseline determination within 120 days. Again, this is so sources can really take advantage of this system and know how to start to work out the compliance strategy as early as possible.

There is a section dealing with cap permits for the ERMS sources, which has really a lot of the details of how this system will be put into place. We will get, I guess, into this quite a bit of detail here by the time Chris and the others do their presentations.

The final baseline determination is included in them. All of the methods and practices, emissions monitoring requirements, these sorts of things that people asked about, and we've dealt with there.

There are certain emission units that could be excluded for different reasons, which we will explain. That's all going to be dealt with there.

The actual allotments, the amount of emissions that each party will have, each source will have, will be spelled out in the permit itself. So that will be available up front and available

for public review. Transfers between sources ultimately can be reflected in the permit.

Kind of a key point that may not be -- that people don't pick up always on is this preliminary versus final baseline determination. We have set it up and the final determination is the one that's appealed, not the preliminary, for a number of reasons obviously.

There may be other things worked out between the agency and sources along until the permit is issued. If anyone has a particular problem with a decision we made, they will have their opportunity to argue before you all about what the right answer should be. Bharat has assured, though, we're going to work out 99 percent of them and we won't have to worry about that.

Baseline emissions, this is another one of those artful processes, but we finally wound up with sort of a tiered decision process here starting off with the years '94, '95 or '96 as sort of our basic core years that we would look at, and then the source would take the average of the two highest seasonal VOM/VOC emissions, the highest emissions from those, as their baseline with a couple of other

opportunities.

For most people I think we have talked with, that probably works fairly well right there and we probably don't need to go any further, but there are some other situations that people would point out to us where they really said, oh, gee, '94 and '95 were really strange years, we have a bunch of downtime. We had special maintenance. We had equipment process change. Our emissions are not representative at all. The really representative year for us is '93. Our feeling was to let people substitute other years in a range from 1990 up to '97.

We started in '94 because that's the first year we feel real comfortable with some of our emissions data. The first year they filed, it was a little bit of a challenge to get everything all straightened around and people made a lot of amendments to their reports and they were still getting the process of reporting their emissions sort of really fine tuned, but in looking at the data that we've been getting and what have you, '93 looked a little better and '94 started to look like people really had things under control. So

that's the start point that we picked for this three-year period.

There are certain increases and decreases that are then work factored into that baseline that are really important to -- and we're going to go -- I think Chris or somebody is going to go through each one of those provisions in a fair amount of detail and probably present some examples here, because those make a big difference in terms of understanding how this system will really apply to people.

One of the big issues that came up was voluntary over-compliance that occurred after 1990 and people essentially didn't want to be penalized for the fact that they were at a lower level of emissions than the actual, say, RACT requirement that might be applicable to them.

We said, no, we don't want to penalize you. So we will start you at where the RACT level would be as an example although we said we have to update that to get to the post-1996 control period.

Essentially, what it means is these increases will kind of take care of the equity of some of the other compliance between sources. We

will all be normalized in '96. We don't want to wind up bringing into it things we don't intend to.

There are certain other decreases to reflect special situations with variances or consented release, things like that. Seasonal emissions data will be obviously part of this.

Monitoring and methods has gotten some discussion with folks. We really settled down that however it is we would work it out with the cap permit, how they would be accountable under their cap permit, that's really probably the approach that will apply in the market system too.

We had set it up as a minimum meaning if something comes up with the permit process and we feel we really can do something a little better, I think that's open for being worked out, but it's expected to be very similar, I guess, to what we've been doing.

Seasonal emissions management, each source receives an allotment beginning in '99. Allotments in trading units are valid for the current season and next succeeding season.

I thought Joe Goffman did a good job of kind of explaining our approach to that. We have

an unlimited life on it. You're liable to create some possible problems with the banking approach, but it does give people the flexibility rollover emissions from one year to the next and build-up a reasonable emissions bank and take advantage of that.

I mentioned the ATUs representing 200 pounds and the initial allotment that they would get would be baseline emissions, but reduced by the 12 percent. That is our target for the rate of progress 11 requirements.

Any further -- in the rule itself, this is a commitment that we made to the regulating community, that the next round, if there is a question mark on our flow chart, the Phase 2 reductions beyond the 12 percent, will be back here and it will be another rulemaking, we'll go through the same process of justification and what have you that got us to this or this proposal.

Exclusions from further reductions, that's one I mentioned earlier. There were a number of situations that came up. The first one, the NESHAP and MACT standards, actually one of the assurances that's in the legislation, the amendment

to Section 9.8.

There are situations really for equity purposes and what have you where it just probably doesn't make sense to go any further, obviously, if they have gone as far as they can with technology, et cetera. It's sort of the bottom line rather than have people face sort of a technical impossibility.

So we've set up the best available technology decisions that also could be a reason to exclude units. An important aspect of that when we first worked on that, we talked about excluding -12 every one had in their mind, oh, let's exclude the whole thing from the system completely. It was actually our economist participants and friends who said, oh, my gosh, don't do that because you're losing a real opportunity. Exclude that emissions unit from the reduction, the 12 percent reduction, but leave the emissions in the system because later on, if for some reason through innovation or what have you that they find that they can make reductions from that unit, then, that becomes something as tradeable as somebody who has value and they get some benefit from it. That's really the way we have left that since that time.

There are a couple of special emission reduction situations and any one of these is probably -- will need a fair amount of discussion so I will just make a highlight point here.

One is source shutdowns. Another major magic formula here, the 80 percent, 20 percent, I think in one graph, we had 70/30. We had comments from public interest groups saying that 100 should go for air quality benefit. Why should a source continue to do anything? I would say probably about every percentage and every possible way of dealing with this, we have heard some oral comment or gotten written comments if we went through our four rounds of drafting, four drafts of rules for the proposal.

This reflects sort of our best judgment as to where to wind up with this. There ought to be some benefit to the system as a whole, but the sources are the ones that are incurring the majority of the costs and probably deserve to see some -- and do deserve to see some of the benefits. So we finally went with an 80/20 split. There may be other folks who argue one way or another for that.

Emission reduction generator is another interesting wrinkle that developed as we

get into this. We feel there are going to be some opportunities out there to get some emission reductions from other stationary sources, but that are outside the system. They aren't required to be participants and that should be a compliance option for people. If they get reductions to happen in the nonattainment area from smaller stationary sources and take -- essentially convince us that they met certain conditions, then, that becomes the way they comply rather than reduce something at their own location.

Intersector transactions, this starts to show where the market system can really create a whole different set of options for people and open up the process of getting reductions we need. We've shown you an example here in these overheads, not mentioning the rule, per se, but car scrapping, for instance, the pilot project work that we did, showed that that looks like it could be a very viable option in some cases. We did this emissions reductions. We can bring that in and provide trading units for that and essentially, that could be somebody's compliance program, which under the old command and control approach, that was not even

available as an option at all and it still isn't.

Market transactions, there have been a number of questions about this off and on, but there is really two parts to how the transaction process would operate. One is this sort of public bulletin board system and behind that would be an ERMS database or a transactions account database like a banking system, so to speak, where nearly all the nuts and bolts and details about what's happening with the market would be located, but there would be certain information posted publicly. Who had accounts? What are the levels in the accounts? Have transactions been taking place?

Price, however, would not be part of that bulletin board, which is something that's gotten a lot of discussion back and forth. We would wind up just reporting probably on an average basis what transaction prices were out there, but not on a case-by-case basis.

Each source -- participating source who is a full participant in the system would get a transaction account. It has a designated account officer. We still think it's important that they complete a training program. This is different.

It's not the old way of regulating. There are some bells and whistles to this that people should be very familiar with.

As we get this transaction account system, there will be forms and there will be procedures they need to follow.

We have, however, made this a lot less onerous than when we started out. We actually started off by saying -- trying to work on an approach where there would be certified account officers and what have you. It was all getting so complicated we just got away from that and said as long as they designate a person, the person gets some training from us, fine, we will let it go at that.

General participants, I mentioned, do have a transaction account. The special participant does not need one. They just register with us. We are convinced that we can get these transactions all entered into the database and official within a week's time, which is pretty fast.

Performance accountability, there are a number of provisions in there that I think we are real comfortable will work well in this system.

There's a compliance -- accounting provisions where each source has to maintain a compliance master file that pulls this information together.

We really borrowed this concept from something Bill Compton will talk about when he presents his testimony and that is the approach taken with the heavy-duty engine program and the requirement that has sort of an auditable file where there is accountability here that will have all of the information that you need.

We describe a master file review. Well, it's a compliance review is what it is to look at all of their information to make sure that things are there that should be there and two, that we were satisfied with the quality and the accuracy and what have you.

Every time we do one of those reviews, and that's going to be a very thorough process, I believe, we're going to come out with an actual report and provide that to the source and that would be accessible to the public as well to show what we found out from that process.

One of the things that we agreed to do in this review process to help deal with this

question about are certain things happening at facilities, are hazardous or toxic air emissions going up that might not have gone up because of trading, what have you, that's something that we will check when we do one of these reviews. We will actually look at have they conducted transactions there and did any of those transactions influence the level of the emissions of hazardous air pollutants?

So that will be dealt with case-by-case in these reviews and then also will be reported on annually in the performance report.

We mentioned already the reconciliation period. That's the time where a source can continue to make transactions to try and work out their compliance concerns.

So let's say someone goes into a season, thinks they'll be okay, and gets to September 30, as soon as they reconcile their emissions and they have the data, they realize, oh, my gosh, we're a few tons off, something just didn't quite go the way we wanted or what have you, they still have several months to go out to the market and try and -- or come to the ACMA and take care of their compliance issue.

Under performance accountability is the description of the ACMA. It's probably one of our least creative snazzy acronyms that we have managed to come up with over the years. It sounds like some sort of a health problem to me half the time.

Alternative compliance market account is the approach that we came up as sort of this safety net. It's really meant to be a secondary source of ATUs that participants can use. This came up in the context of the what if context. That's what I refer to it as.

A number of sources were saying, gee, what if we get into an odd situation year and everybody hordes their allotment and nobody will trade with me? I'm stuck.

One answer to that, which was in an earlier version of this -- I promised an unnamed party that I would mention this, so I'm going to do it. You heard that the acid rain program has an auction process, which is one way to sort of assure -- that was a political problem Congress dealt with. Oh, my God. I won't be able to get any access to emission units. I have been trading units or

allowances for SO2. There ought to be some way that I can make sure or there is something I can go compete for. So they put in the auction and set aside allowances for that auction.

We actually started our system out the same way. We had an auction early on and the very warm response we got was no, no way, we don't want to give up part of our emissions, put them in the auction, and have to buy them back.

People were comfortable with this kind of approach, and that is to have sort of a separate insurance account, if you will, that every participating source would contribute one percent to. That's actually part of how the 12 percent gets generated. That would be put into this ACMA each year.

There are also several other sources that would go in there, that 20 percent from the shutdowns, the extra six percent for someone who wants to opt out at 18 percent, and believe it or not, voluntary contributions.

I mean, we still -- we've got people that have talked to us about this and we really do expect people to wind up just flat out contributing

part of their allotment that want to do it for the overall viability of the system.

Then, we set up a two-step access process. I think I'll save that to the detailed testimony later on. The idea is as long as there are eight ATUs available in there, basically anybody can get them on a first come, first serve basis. Then, in case we run into a situation where we're a little short, we have an extra wrinkle in there so that people could still get some kind of help.

I think I have gotten to the last overhead. Okay. Emissions excursions compensation, another mouthful of words. It means you've got to make the system square up at the end and if someone has gotten into a compliance problem and they've got an excursion, they've emitted more than they've got ATUs to cover, then, in order to assure that we get the end product that we want, we've put in there a compensation approach at one and a half times, 1.2 times, a 20 percent kicker the amount of the excursion.

Obviously, to sort of have a disincentive to this, well, we emitted more than we need to because we are are going to have to catch up

or pay for it in the long run. If it happens two times in a row, we push it up to one and a half times.

Now, the way we've set this up as a default is that they have to go pay that differential out of the -- by purchasing out of the ACMA, which is at a high-end dollar amount. That's going to be again something we think certainly will help ensure or detour noncompliance, but if a source really doesn't want to pay that rate, they can advise us within a certain time frame, at least 15 days, and have it taken out of their next allotment, but that means they have to scramble and figure out next season what they're going to do so they have less emissions.

Emergency conditions, there is a provision in there on that. I think it was a question that came up during the development process, gee, what happens if we have an explosion in a facility, it's totally beyond our control, or some sort of strange event takes place?

I think our feeling was that if it is an aberration, a one time incident, something that doesn't happen on an ongoing basis, it isn't likely

to happen next season, but in fact, there ought to be a time out provision for those emissions. It's just not going to be fair to uphold people to that.

Then, there is the review procedures where -- that have been mentioned, the annual performance review report. We really do intend there to try and get at a number of these questions that come up. What are the trends? Where are the tradings taking place? Is there any net movement or flow of emissions from one geographic area to another? We will keep track of that sort of thing and it will be reported the idea is if something really significant develops in that process, then, we actually ought to do something about it.

I think actually the way we wound up here with Bharat's approach with this phased air quality strategy, it actually makes this all fit together even better.

One of the concerns that was raised early on -- well, early in this drafting process of the rule was if we have a full 11-year attainment program, then, we are sort of buying off on the whole system on the front end and are we really going to get these kinds of problems dealt with or not?

Well, now we're moving into a three-year reduction period program and we'll be back probably after that. So if the first three reports show some sort of a trend of some kind, we can still do something about it.

That pretty much sums up my first piece.

MS. SAWYER: Thank you, Mr. Kanerva.

THE HEARING OFFICER: Before we go on with questions, Mr. Kanerva has to leave at 4:00 o'clock today.

I was thinking we could take a quick five-minute break now and then we can get into the questions for him. If we don't finish all of the questions, we will have to start up again at another date with questions for Mr. Kanerva.

I think that's the best way to handle it right now. So why don't we take a five-minute break. Be back here as soon as possible.

(Whereupon, a discussion was had off the record.)

THE HEARING OFFICER: We are going to open questioning for Mr. Kanerva, but let's keep in mind the fact that he testified generally about the

proposal.

I don't know if he is prepared to answer specific questions to specific sections. So if you have general questions about the overview or how this proposal might interact with other things out there, I think that that might be appropriate questions.

MS. FAUR: Hi. I'm Cindy Faur from Sonnenschein again.

In your testimony, you recalled a meeting where you discussed the 18 percent reduction exemption. Can you elaborate how 18 percent was selected?

MS. SAWYER: Well, this is one of those areas -- I mean, he can answer it, but it is one area that we will present more testimony on.

MR. KANERVA: Yes. I think that would probably be the best way to handle that because there 18 was a specific process the air folks looked at to come up with that.

They clearly felt what the source view as the quote, unquote, benefit or getting out of the process, that it ought to be a larger reduction than just the 12 percent. There ought to be some gain to it. They can explain that.

MS. FAUR: Okay.

MS. ROSEN: I'm Whitney Rosen from the Illinois Environmental Regulatory Group.

If this is a specific question, I apologize. How often does the agency plan on conducting matter file reviews that you have referred to in your testimony?

MS. SAWYER: I'm sorry to do this, and I'm not trying to be difficult on this, but we're going to present testimony by David Kolaz and he is in charge of the agency's compliance unit, and he would be more able to answer that question.

MS. ROSEN: Thank you.

MS. MIHELIC: I'm Tracey Mihelic from Gardner, Carton & Douglas.

You spoke earlier about the members of the design team that were companies located in the Chicago nonattainment area and I have Abbott Labs and Caterpillar. Who were the other companies?

MR. KANERVA: Corn Products Company and Amoco.

MS. MIHELIC: Do you know what the annual emissions from these sources currently are?

MR. KANERVA: They are listed in the final

proposal document. I don't remember off the top of my head what they were.

MS. MIHELIC: Did the agency ever consider, including the design team, a source with low VOC emissions, perhaps below 20 tons?

MR. KANERVA: I was going to ask you what you mean by low.

MS. MIHELIC: Around 25 tons.

MR. KANERVA: Actually, I don't know. Bill Compton may be testifying about this. Caterpillar's emissions at one of their facilities really are not that large. I forget. I think they are not more than 25. That's Joliet. They are not a multi hundred tons of source by far.

MS. MIHELIC: You stated earlier that you participated in drafting the language of Section 9.8, 17 is that correct?

MR. KANERVA: Yes.

MS. MIHELIC: Can you tell me what proportionate share means in Section 9.8(c)(3)?

MR. KANERVA: That's one where Mr. Mathur is the best expert to describe that, not me. I steadfastly stayed out of the proportionate share debate.

MS. MIHELIC: So you don't know what proporationate share means, the definition?

MR. KANERVA: I think he can give you the most accurate description of it. I think I have in my mind a concept, but it gets involved to say it correctly.

MS. MIHELIC: I guess, for the record, Bharat would be part of the panel that later we're going to be able to ask questions to?

MR. MATHUR: That's right.

MS. MIHELIC: Do you know what the threshold for sources that were going to be subject to the South Coast Areas Reclaim Program, VOC reclaim program was?

MR. KANERVA: If recollection serves me correctly here, when they were still doing all three pollutants, SO2 and VOCs, I think their threshold was 18 four tons on an annualized basis, which is pretty small.

MS. MIHELIC: Is there a difference between sources in the South Coast area and the Chicago area which makes it more difficult to seek reductions 23 from sources with four tons or above?

MS. SAWYER: Could you restate that question?

MS. MIHELIC: Is there a difference between the types of sources located in the South Coast area and Chicago area which makes it more difficult to seek reductions from four-ton sources or involved in the Chicago area?

MR. KANERVA: I have just a couple comments. We are not at a four-ton level so I'm not quite sure why you're referring back to the four tons.

MS. MIHELIC: I'm wondering why you chose -- why in the South Coast area, there are four tons and what the difference of the source is here. Why would they need to go down to four-ton sources?

MR. KANERVA: I'm not --

MS. MIHELIC: I guess Bharat should be answering these questions? I don't mind.

MS. SAWYER: He is a sworn in witness. That's fine.

MR. MATHUR: There are no differences in the kind of sources in South Coast and in the Chicago area, but we have to remember that the South Coast area, which is predominantly Los Angeles, is an extreme nonattainment area and their need for VOC reductions is significantly higher than in Chicago. I believe that is one reason they went down to four

tons.

MR. KANERVA: They have also historically regulated sources to a greater extent in the past than we have had to do here so far.

MR. MATHUR: That is correct.

MS. MIHELIC: Do you know what the South Coast Area Quality Management District is doing to demonstrate compliance with the Clean Air Act since it has dropped its reclaim program for VOCs?

MR. KANERVA: I'm not current on that.

MS. MIHELIC: Okay.

MR. MATHUR: Let me add to that.

Based on my information, the South Coast 14 area has not dropped their VOC reclaim program. They 15 have deferred the startup of that program.

MS. MIHELIC: When you say defer the startup, have the regulations actually been enacted?

MR. MATHUR: I do not believe that they have formally been adopted by their board. They have been 20 developed. By deferred, I mean they have deferred the startup of their VOC reclaim program.

MS. MIHELIC: I guess I'm trying to say when you say startup of the VOC program, it's not enacted, so they have deferred enacting that program

also.

MR. MATHUR: That's my information, but they would know best.

MS. MIHELIC: The rest of the questions are specific.

THE HEARING OFFICER: Anyone else?

MR. TREPANIER: Good afternoon. I'm Mr. Trepanier.

What's your best estimate of the manpower that's needed -- excuse me -- the people power that's needed to operate the system?

MR. KANERVA: That's really a question for the Air Board to answer.

MS. SAWYER: Yes. It's primarily going to be the Air Program to implement it.

MR. MATHUR: Let me answer that. We plan to implement it with the staff we've got and if down the road we need additional staff, we shall so seek additional staff.

MS. McFAWN: How many persons is that, Bharat?

MR. MATHUR: If the Division of Air, there are about 275 people. Exactly how many will be involved in this particular program, I cannot tell at the

moment.

MS. McFAWN: Okay.

THE HEARING OFFICER: Are there any other questions?

MR. TREPANIER: Is the program designed to net a 12 percent reduction from source points by 1999?

MS. SAWYER: I think we've answered that questions on numerous questions.

MR. TREPANIER: Okay. I'll ask the next question, assuming that the answer to that is yes, is that 12 percent reduction necessary for compliance 12 with the Clean Air Act?

MS. SAWYER: I think we've answered that question also.

MR. TREPANIER: That has not been made clear to me. I have heard a nine percent rate of progress is required and this program is shooting for 12 percent.

MS. SAWYER: Well, we did explain that in greater detail during Mr. Forbes' questioning or Mr. Forbes' direct testimony. He went through a slide that explains that.

THE HEARING OFFICER: Can Mr. Kanerva answer the question?

MR. KANERVA: Well, the other three percent, one percent is for the ACMA and two percent is to satisfy contingency requirements that's looked for in the implementation plan.

If you are sitting in Bharat's seat and you are trying to hit exactly nine percent, it's a little bit of a challenge to be comfortable with that. So there is an additional two percent contingency there.

MR. MATHUR: Let me add to that for the record. The Clean Air Act requires an aggregate nine percent reductions of the total VOC inventory over a three-year period.

The Clean Air Act does not require that each sector has to do nine percent. Mr. Forbes, in his testimony, and I, in mine, explained how we arrived at the 12 percent of this particular proposal.

MR. TREPANIER: Maybe you can understand the difficulty in assimilating this information when it came prior to the general description.

I was reading in the EPA, Section 9.8, that the design of the system is to maintain attainment. If given in 1999 we have made the 12

percent deduction, how would the trading system maintain -- have an effect on maintaining attainment?

MR. MATHUR: Let me answer that. As we have explained several times over the last two days, this particular reduction target of 12 percent is the first phase of the possible multi phase emissions reduction targets. The 12 percent is the initial contribution, in other words, helping achieve and subsequently maintaining the ozone standard.

THE HEARING OFFICER: Are there any other questions?

MR. TREPANIER: Yes. Well, in this question, what I'm asking, short of another rulemaking, how does this program in 1999, this pollution trading, assist in maintaining attainment?

MR. MATHUR: It does not. It does not intend to achieve in maintaining attainment at this time. I think the agency has stated several times after the completion of the OTAG study, we intend to come back to the board should it be determined that we need further reductions on the stationary sector through a continuation or revision to the trading program.

MR. TREPANIER: Okay. I think I'm starting

to understand where I'm not connecting with you on this question. I'll rephrase it.

When Chicago ultimately obtains attainment, is there anything in this trading system that would assist in maintaining attainment?

MR. MATHUR: Yes. When we finally come in with the final target reduction, the level of emissions that will be achieved by the stationary source sector at the end of the trading program, that will be a final cap that those sources will have to maintain.

By maintaining that cap which would be adequate to demonstrate attainment, we expect we will maintain attainment.

MR. TREPANIER: You referred to the end of the program. So that would be at the point of attainment then?

MR. MATHUR: That is correct.

MR. TREPANIER: And is that also your understanding, Roger, that the program ends at the point of attainment?

MR. KANERVA: No. The program doesn't end. The reduction stops when you get to your attainment target, but the emissions cap -- what he is trying

to say, the emissions cap for each source stays in place and they continue to get allotment and they continue to have to show compliance and in that way, we are sure that we can stay at that reduced level of emissions.

MR. TREPANIER: When that emissions cap is in place, is that going to be included in that source's Clean Air Act permit?

MR. KANERVA: Yes.

MR. TREPANIER: So if the cap is included within the Clean Air Act permit, what purpose is the granting of allotments and the trading of allotments -- how is that related to maintaining that cap if the cap is already maintained in the clean air permit?

MR. KANERVA: Well, the cap is in the form of an allotment, X-number of ATUs, and we covered their emissions at ten ATUs per ton. That's what the cap is. It's a certain amount of allotment trading units that are issued to that source.

Now, it's up to them to do what they will with that. They can use it for compliance purposes or if they make reductions of some kind and they have trading units available to trade

with someone else, it's all up to them. Nobody has to trade.

The source, in fact, can act in a traditional manner if they want and just do emission reductions and sit tight. It wouldn't make a whole lot of sense if they can get some value of it, but they could.

MR. TREPANIER: Could they use their allotments as collateral for a million dollar loan, I mean, given economics on the market.

MR. KANERVA: That's not relevant to this.

MS. SAWYER: That's a speculative question and Mr. Kanerva is not in a position to answer that essentially legal or tax-based question.

THE HEARING OFFICER: I don't think it goes to this testimony either. So I think you can ask another question if you have one.

MR. TREPANIER: When you recall the meetings that were held in coming forward with the proposal, the meetings that you were able to recall, are those -- do you recall a meeting where you came forward with this proposal, that you met with people from the community that weren't from the potentially regulating communities?

MS. SAWYER: First of all, before we go on with this questioning, you have asked this question essentially in some form or another with every witness and as Board Member McFawn explained, we are in the process of going through the public hearings for this rulemaking proposal.

This is the forum that the General Assembly found to be the appropriate forum to conduct these public hearings. I think you can answer in terms of outreach meetings that we held.

MR. KANERVA: You used the word community. I will respond, but I'm not sure if I'm connecting up with you. You can let me know if I am or not.

In terms of interested groups, we obviously met with all the sorts of folks in the regulating community, but we also met with public interest groups. I think you attended one sort of workshop session that we had. I believe it might have been about the second drafts or maybe the third.

I didn't double-check this, but you sat in on a workshop that Roy Harsch helped arrange with us. There were some public groups there. There was public interest group participation from the Chicago

Lung Association and several others as well the Midwest Center for Environment Policy that sat in on the more or less quarterly policy advisory group meetings that we had, the great big group that we would get together and update on our work.

That was the main way we used to outreach to people. If they wanted to meet with us and they had some kind of workshop discussion, we would do that in group settings if we could. I don't even recall a number. It's a lot.

MR. TREPANIER: Did you hold a public meeting with persons that had environmental concerns regarding the proposal as I had requested when I did find out about the workshop in Chicago on the day prior to it occurring and requested that such a meeting be held, was that ever held?

MR. KANERVA: The meeting you are describing was not held. What we did -- and again, this is sort of an efficiency thing, we felt it would make sense to get public interest groups together as sort of a group type of thing to talk to as many folks as we could or as possible.

The discussion basically was they weren't comfortable with that particular mix of

groups. So the whole thing sort of fell a part and we finally wound up meeting with a couple of them individually, but we did not put in place the meeting that you are talking about.

MR. TREPANIER: Do you have knowledge that the -- if the agency did any mailing to the mailing list they established?

Are you aware of the mailing list that you directed me to for this proposal? Do you still recall that that existed?

MR. KANERVA: Yes. There is a mailing list for everybody involved in our policy group activity. There was a mailing list for that. Now, you are saying proposal. That's probably a separate arrangement

MS. SAWYER: Yes. We sent out numerous drafts to the entire group.

MR. KANERVA: Every one that was on the original mailing list for the clean air policy group?

MR. KANERVA: That's the mailing list. That's who we sent the draft various -- draft rules.

MR. TREPANIER: Is that a mailing list separate from the Clean Air Forum mailing list?

MR. KANERVA: It's the same.

MS. SAWYER: It's bigger.

MS. McFAWN: You seem to be having some confusion about the mailing list. I have to say I'm not quite sure what this mailing list is myself. I'm not sure how relevant it is to this proceeding. Maybe you could provide us with a copy of it in its final form and just an explanation of when and how you used it?

THE HEARING OFFICER: Are there --

MS. SAWYER: I guess. I mean, we have had this question asked to numerous people. Maybe we can talk about it after the hearing. I guess we are not sure what you are trying to get at with all of these questions.

MR. TREPANIER: I can submit it in writing because I know the names of persons, who held the mailing list and what date they had the mailing list on and what date you told me my name was on the list and the fact that there was never a mailing from this list although other lists were used. I'm trying to ask questions along this and you seem not to be real clear on what mailing list was used.

MS. SAWYER: Well, we have numerous mailing

lists.

THE HEARING OFFICER: I guess at this point since Mr. Kanerva has to leave at 4:00 that I will stop with this line of questioning. If you feel a need to raise these questions at another time, and I think possibly in the interim, you can talk to the agency, you can raise those questions at the next set of hearings and see what we get.

Now, if you have other questions for Mr. Kanerva beyond what mailing list was used prior to the proposal being filed, feel free to ask that.

MR. TREPANIER: Okay. I might need a minute.

THE HEARING OFFICER: Okay. I have a question.

In the beginning of your testimony, you mentioned a feasibility study being done. Now, was the study done before the final design proposal?

MR. KANERVA: Yes.

THE HEARING OFFICER: Was that study part of the record?

MS. SAWYER: Let me just clarify what study you're referring to. Since the pre-feasibility?

MR. KANERVA: No, the pre-feasibility study.
MS. SAWYER: I believe so. I have to look, though.
THE HEARING OFFICER: If you could, check to see if it is? If it isn't, is there any way we could get it included?
MS. SAWYER: Sure.
THE HEARING OFFICER: I have one other quick question. I could probably read the rule and find out for myself, but I'll just ask it anyway.
In the year 2000, under the diagram we are talking about, how the agency has to make a ROP demonstration, is that to the U.S. EPA?
MR. KANERVA: Yes.
THE HEARING OFFICER: I have one more question.
In your discussion about the baseline emissions, I could probably figure this out too, but you talked about you could substitute other years justified by, you know, justified within the 1990 1997-year span. If you are a new source, is there a span for new sources to justify or do they start with 1990/1997?
MR. KANERVA: I assume Chris will probably

get into that with more detail. It's a separate procedure for a new source.

THE HEARING OFFICER: Okay. I'll save it then.

MR. KANERVA: There's two different approaches depending on whether it's a major new source or not.

THE HEARING OFFICER: Thank you.

MS. McFAWN: I have a quick question also.

Like Chuck is saying, it's probably in the rule, but concerning interceptor transactions, you said ATUs will be assigned emission reductions, who receives those ATUs, for car scrapping activity, the car scrapper or the state?

MR. KANERVA: Actually, that's something we wound up streamlining a fair amount. It started out that we were thinking of just giving those to whoever it is that generated the actual reduction like the car scrapper or whatever.

We finally realized that in order to keep the mechanics of the system working better, et cetera, any of those reductions ought to be applied for through one of the participants.

So we actually -- actually, part of the sponsorship would be linked up to the

participating source or a general participant and they would actually be part of applying for those ATUs. they are the ones that would actually get the ATUs.

MS. McFAWN: So for instance, if it was a car scrapper, it would make more sense that they would be a general participant?

MR. KANERVA: Right.

MS. McFAWN: Thank you.

THE HEARING OFFICER: Are there any other questions?

MR. DESHARNAIS: I have one question. You mentioned that the ERMS database will be available in bulletin board format. Is that going to be available on the Worldwide Web or how is access to that going to be?

MR. KANERVA: That's an interesting thought. It could be, but at this point, we really focus more on just having it set up as a database -- a typical database to be accessed by the account holders as our main focus. That doesn't mean that we couldn't put it up for anybody to access on a broader scale.

MR. DESHARNAIS: The question I'm getting at is access.

MR. KANERVA: Right. We clearly would want to have good accessibility because we have had -- this question about how do we find each other in the marketplace and we don't want to wander around blind and all the rest, that's come up continuously. So we said anybody would be able to access and find out if people were posting units for sale or interested in a purchase or actually check allotment levels, too, so you can kind of make your own judgment as to who to talk to.

THE HEARING OFFICER: Mr. Newcomb?

MR. NEWCOMB: I have just a quick question.

Has the IEPA already determined who the contractor is to design the ERMS database?

MR. KANERVA: No, and we are taking no applications today!

MR. TREPANIER: When the emissions -- when certain emissions are not regulated under this program, emissions such as emergency conditions or startup and malfunction, if those are provided for in the operating permit, has the design team totaled the amount of emissions from the source points that they are exempting from the program?

MS. SAWYER: This is a question that I

would defer to Mr. Romaine or Mr. Forbes.

MR. TREPANIER: Okay. You mentioned that in December of '93 that the design team was surprised to learn that the reductions in NOx might actually increase the ozone.

My question is since the late '80s, the U.S. EPA and specifically in 1989, the Office of Technology Assessment, has published information saying that it's historically known that NOx is not the problem in urban areas and reductions in NOx might actually increase ozone. How is it that the design team was surprised in December of '93 with this information?

MR. KANERVA: That's really a question for you.

MR. MATHUR: Let me answer it. You are correct in stating that it has been demonstrated prior to 1990 that NOx reductions may increase ozone.

The Clean Air Act in 1990 that allowed the use of VOC reductions and NOx reductions towards credit for ROP was a particularly attractive opportunity in the Chicago area where NOx production had not been previously sought therefore would have

been relatively cheap to get.

The agency was hoping that those NOx reductions would become available for use in a Chicago ROP strategy. It was on that basis that the design team embarked on a NOx trading program.

The surprise came when modeling done by the Lake Michigan Air Directors Consortium, which I discussed yesterday, confirmed that the phenomenon that had been known before did exist in Chicago.

Therefore, NOx was not available because of its attractiveness. That was a surprise. Not all urban areas of this country are experiencing the same phenomenon. It is not true that NOx is not a viable option in all urban areas.

MR. KANERVA: In fact, the Ozone Trading Commission for the northeast has already agreed to and voted on and is pursuing the implementation of a NOx reduction study for the northeast because their modeling showed a different effect.

MR. MATHUR: That is correct.

MR. KANERVA: It really is area-specific in how it works out.

MR. TREPANIER: Okay.

MS. MIHELIC: I have one more question.

I think you stated during your testimony that the agency is still considering a NOx reduction program in the Chicago nonattainment area.

Is that correct or not?

MR. KANERVA: No, NOx reductions in Illinois. In other words, upwind because of this OTAG background ozone study process that's underway, there may turn out to be NOx reductions outside of Chicago.

MS. MIHELIC: But you are no longer considering NOx reductions inside the Chicago area?

MR. KANERVA: That's correct.

MR. MATHUR: Let me add to that. Like I testified yesterday, it is still our technical conclusion that NOx reductions in Chicago cause disbenefits. We await final results of the OTAG analysis to determine if that continues to be the case under all of OTAG's scenarios and even if it continues to be the case, are there any benefits from NOx reductions in Chicago that outweigh the disbenefits?

Therefore, we have not finally concluded that there never will be NOx reductions in the Chicago nonattainment area. That is our position as

of today.

MS. MIHELIC: Has OTAG come up with any conclusions of what benefits there may be to NOx reductions in the Chicago area?

MS. SAWYER: I'm going to object to this line of questioning. This is a VOC emissions reduction program that we are talking about here.

MS. MIHELIC: And I think with all of the alternatives here, the reason that the VOC program has arisen is because it was a NOx reduction program. Initially, there is testimony that was provided this afternoon to cause it to realize NOx isn't right, let's go to the VOC program and --

MS. SAWYER: And I realize that, but I think there is a level of questions that are relevant in that area, but too many questions, I just don't see, as relevant to this proceedings.

MS. MIHELIC: Well, because if there are NOx reductions in the Chicago area, when I have heard testimony yesterday and today, that is going to perhaps cause further reductions in VOCs to be required because it will be a disbenefit in this area that will actually cause ozone to increase.

THE HEARING OFFICER: What was the question

again?

MS. MIHELIC: What are the benefits from -- what are some of the benefits that OTAG has concluded exist when there are NOx reductions in the Chicago nonattainment area?

THE HEARING OFFICER: Can you answer that?

MR. MATHUR: Yes, I can answer that.

OTAG has not made any final conclusion yet.

THE HEARING OFFICER: It's five minutes to 4:00. Mr. Kanerva has to leave a 4:00. So if there are any questions to his overall statements today, why don't we ask Mr. Kanerva those questions?

I'm sure Bharat will be around for the next set and so will Mr. Kanerva, I hope, but let's focus on Mr. Kanerva for this last five minutes.

Are there any more questions?

Okay. Let's go off the record.

(Whereupon, a discussion was had off the record.)

THE HEARING OFFICER: I think the next hearing we will start off with the agency's presentation of the testimony of the several witnesses. They have mentioned Chris Romaine,

Don Sutton, David Kolaz, and Gail. I forget Gail's last name.

We will do that in the morning and then we will start up with the questions for them as a panel group who will be joined by Dick Forbes and Bharat in the afternoon.

On the 4th, then, we'll start off, I believe, with Mr. Goffman's testimony, if he has anymore and questions of him. In the afternoon, I guess we will jump back and see if we have any testimony from the agency unless we have questions from the other day for the panel before we go on, if that's okay.

MS. McFAWN: I would say what Chuck alluded to was that we might have to have more hearings and depending on how the questioning of the panel goes, we probably will have a better idea on the 3rd and 4th. We would love to know now, but that's premature.

Do bring your calendars with an idea of when you think you might be able to reconvene. What we will do is try to set aside a couple of dates that we know we can get rooms for and present them to you at that time.

MS. MIHELIC: I just have a question. There was one -- a person mentioned earlier that would be testifying on the 3rd -- not on the 3rd, but on the 4th on the economic impact analysis. What was the name of that person?

MS. SAWYER: Cal Case.

MS. MIHELIC: And is there any prefiled testimony by Cal Case?

MS. SAWYER: No, there isn't.

MS. MIHELIC: And will there be prefiled testimony prior to the hearing?

MS. SAWYER: I'm not entirely sure. He is essentially -- the purpose of his testimony is that he is an economist. He has essentially taken a look at what we did, but he has not conducted an independent economic analysis.

MS. MIHELIC: I think that the purpose of the prefiled testimony is to allow an opportunity to allow prefiled questions and that opportunity will not be available for his testimony.

THE HEARING OFFICER: Let's go off the record for a second.

(Whereupon, a discussion was had off the record.)

THE HEARING OFFICER: So we were talking about how the 3rd and 4th are going to be handled.

I also have mentioned that this transcript is being done expeditously, which I am told by Lori that we will have it by Monday of next week. Hopefully, that will be here in the board's office for review. You can get copies from Lori. We will be putting it on the web for review hopefully by Tuesday or Wednesday.

With that, I will end unless there is something else to be discussed from today's hearing. I will see you all on the 3rd at 10:00 o'clock.

(Whereupon, the proceedings held in the above-entitled cause were adjourned to be reconvened at 10:00 o'clock a.m. on February 3, 1997.)

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STATE OF ILLINOIS)
) SS.
COUNTY OF C O O K)

I, LORI ANN ASAUSKAS, CSR, RPR, notary public within and for the County of Cook and State of Illinois, do hereby certify that the testimony then given by all participants of the rulemaking hearing was by me reduced to writing by means of machine shorthand and afterwards transcribed upon a computer, and the foregoing is a true and correct transcript.

I further certify that I am not counsel for nor in any way related to any of the parties to this procedure, nor am I in any way interested in the outcome thereof.

In testimony whereof I have hereunto set my hand and affixed my notarial seal this 27th day of January, A.D., 1997.

_____

Lori Ann Asauskas, CSR, RPR
Notary Public, Cook County, IL
Illinois License No. 084-002890

SUBSCRIBED AND SWORN

before me this 27th

day of January, 1997.

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Notary Public