BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

VOLUME IV

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

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 4th day of February, 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. 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. We're going to do a little switch on the schedule that I talked about at the close of yesterday's hearing due to plane delays.

This morning, I would like to start out with the testimony of Gary Beckstead. I believe we

will have questions to Gary also after his testimony since he will not be available at the 10th and 11th hearings. His testimony is strictly on technical feasibility.

I hope that is a feasible task this morning. So are there any comments about that?

MS. HODGE: I just have maybe just a clarifying question. I know the agency said the testimony is on technical feasibility.

When I look at it, there is a good amount of economic information on the testimony. We will certainly have some questions on economics, but we would like him to come the same time you put on your economist, Mr. Case.

MS. SAWYER: Well, Gary doesn't necessarily have to answer those questions on economics. He worked in coordination with Chris Romaine and Gale Newton and others on that. So other people could

answer those questions.

MS. HODGE: Okay. That's fine.

THE HEARING OFFICER: I don't mean that I am going to excuse Mr. Beckstead from today. Hopefully, we can get most of those questions answered.

The other thing we should just talk about real quick before we start is the questions on the ACMA portion. I don't think Mr. Kanerva is going to be with us today. I think we're going

to have to hold those questions. I don't know if it would be a good idea to ask all of those questions up to 610 or just skip 610 and ask the questions after 610 if there are any. There are not that many sections based on that.

MS. SAWYER: My suggestion is to skip 610 and move forward.

MS. McFAWN: Is there anyone else from the agency that can answer those questions?

MS. SAWYER: No.

MS. McFAWN: When is Mr. Kanerva going to join us again?

MS. SAWYER: The 10th and 11th.

THE HEARING OFFICER: So with that, we will turn it over to Bonnie to call her witness.

MS. SAWYER: The agency calls Gary Beckstead.

THE HEARING OFFICER: Would you swear in the witness, please?

(Witness sworn.)

WHEREUPON:

G A R Y B E C K S T E A D ,

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

MS. SAWYER: Please proceed.

MR. BECKSTEAD: My name is Gary Beckstead. My academic credentials include a bachelor's degree in ceramic engineering from the Georgia Institute of

Technology at Atlanta, Georgia, and a master's of science degree in applied earth sciences from Stanford University, Stanford, California.

I have been employed by the Illinois Environmental Protection Agency since April of 1991 as an environmental protection engineer in the Air Quality Planning Section of the Division of Air Pollution Control in the Bureau of Air.

In general, I am involved in the review of emissions inventories and in the preparation of technical support for proposed ozone regulations affecting point sources. In this capacity, I have

responsibility for projects that address the expansion and applicability of reasonably available control technology on sources emitting ozone precursors.

My responsibilities include quality control and quality assurance of ozone inventories and the evaluation of point source emissions. I have prepared technical support for rulemakings R91-28, R93-14, R94-16 and R94-21.

Rulemaking R91-28 involved the geographic expansion of RACT to point sources submitting volatile organic material that were located in Goose Lake and Aux Sable Townships in Grundy County and Oswego Township in Kendall County.

I reviewed the Illinois EPA emissions

inventory for potentially affected sources and evaluated the economic reasonableness and technical feasibility of controls that this rulemaking would impose.

I also assessed the impacts of RACT on VOM point sources for Rulemaking R93-14, which implemented the change in the definition of major source from 100 tons per year to 25 tons per year in the Chicago nonattainment area pursuant to the

requirements of the 1990 Clean Air Act amendment.

In addition to these RACT rulemakings, I provided technical assistance in determining potential VOM emission reductions and control costs for meeting the 15 percent rate of progress plan for Chicago and Metro East St. Louis nonattainment area.

In the development of the 15 percent ROP, I prepared the technical support documents for rulemaking R94-16, which addressed the feasibility and economic reasonableness of lowering the applicability for air oxidation processes and for rulemaking R94-21, which addressed tightening surface coating standards.

In regards to the present rulemaking for the Emissions Reduction Market System, I have technically assisted in evaluating potential VOM reductions from traditional command and control

techniques and in determining the cost and feasibility of controls to obtain such reductions.

I estimated the emission reductions obtainable and cost of controls from imposing California RACT regulations for the extreme ozone nonattainment of Los Angeles on the point sources

located in the nonattainment area in Chicago.

In addition, I assisted in reviewing the 50 VOM point sources in Chicago with the greatest annual emissions to determine the availability of emission reductions if the most stringent controls currently known to be available were applied to these sources.

Finally, I technically assisted in determining control costs for all the various standard industrial classification codes that are presented by the point sources located in the Chicago nonattainment area.

My testimony is on the methodology used in determining these various control costs and the emission reductions has been pre-submitted.

I am here today to offer testimony to the Illinois Pollution Control Board to clarify any technical questions that might arise in regards to this submittal or portions of the ERMS TSD that address these issues.

MS. SAWYER: Thank you, Mr. Beckstead.

Are there any questions? Actually, I think there were some specific questions in Gardner, Carton & Douglas when they filed for Mr. Beckstead.

MS. MIHELIC: We did, and after meeting with the agency last week, we have significant revisions to those questions. So I'm not sure if there is anybody else that has questions that want to go first that may be addressed that already have prefiled questions.

MS. SAWYER: I believe Mr. Trepanier also had specific questions for Mr. Beckstead.

MR. TREPANIER: Thank you. Good morning.

What, if anything, did the agency do to confirm or check the information that was provided by the sources? This was that information cited in the testimony under Section 2.2, estimated cost of controls.

MR. BECKSTEAD: I became as familiar as I could in regards to the source or sources that were contending that materials were not available to meet the limits specified.

I reviewed sources with similar operations located in other regions who were meeting the prescribed limits to determine how it was being achieved.

Contacts were also made with at least three of the largest suppliers of surface

coating materials to determine if materials meeting the specified limits for the application in question was available.

I also discussed future availability of such materials with supplies.

MR. TREPANIER: Did you learn that these -- that there are these materials available?

Is there somewhere that these -- that the material substitutions or the reformulations are taking place?

MR. BECKSTEAD: For the particular sources in Illinois, these materials were not available from the information that I gathered.

MR. TREPANIER: I understand that would be expected as these materials are expected to be of a higher cost and they are not required in Illinois, but in places where this material is required, is that material available?

MR. BECKSTEAD: The survey that we performed in California found that, yes, some materials are available and other cases, add-on controls were being used depending on the particular application in question.

MR. TREPANIER: Were there any cases that you

found where a reformulation was being used to meet the lower emission levels?

MR. BECKSTEAD: Yes, I did find that.

MR. TREPANIER: Then, did this information, then, confirm what your sources told you -- that your sources told you that this material was available?

MR. BECKSTEAD: My sources told me that the materials were not available in Illinois, but the Illinois sources, for the particular applications that they had, I was informed that the material substitution and the limits we were asking would force them into add-on controls.

MR. TREPANIER: Now, I'm understanding that your response is saying that you found these materials to be in California. Did you find that that information -- does that information lead you to believe that these materials would become available when it's required?

MR. BECKSTEAD: In talking to suppliers for the particular applications in Illinois, materials are under R and D, but I was informed that it could take as high as seven to ten years to make these materials market-available.

MR. TREPANIER: Maybe I'm not understanding you or I'm asking the same questions, but these materials that you found in California and identified, these were comparable materials?

They are using processes in California, which were processes that would fix cars or whatever just as well in Illinois?

MR. BECKSTEAD: They are comparable, but they are not exact.

MR. TREPANIER: Do you have information if the sources of materials that are available in California could just be shipped across the country and certainly wouldn't take --

MR. BECKSTEAD: Several of these large suppliers have distribution throughout the United States, yes.

MR. TREPANIER: What do you know of the generalized comparison that could be made of the pollution controls obtained through a material substitution compared to the cost of pollution control obtained through add-on costs?

MR. BECKSTEAD: Such materials have to be available for the application in question. For the particular application that Illinois' sources

have, materials substitutions are not available.

On the basis of the information gathered in the 15 percent ROP plan, impacted sources

substantiated that any further tightening of the limits beyond those set in the 15 percent rulemakings would necessitate add-on controls for Illinois' sources and their particular applications.

In general, materials substitutions can be less expensive. However, equipment changes and additional process renovations can add substantially to the overall final costs of controls.

THE HEARING OFFICER: Mr. Trepanier, could state the question number when you ask it while we go through?

MR. TREPANIER: Yes.

THE HEARING OFFICER: Thank you.

MR. TREPANIER: I understand you are saying that if there is a material substitution available, that that's generally less expensive than an add-on control?

MR. BECKSTEAD: In general. It's kind of a case-by-case evaluation. Some substitutions require major changes in processing and interrupts production

schedules and you have to go through evaluating and getting all the bugs out of it. So it's not just a cut and dry yes answer. You have to evaluate a particular substitution that you are going to undertake.

MR. TREPANIER: Those substitutions that

you found in California, if those materials were available in Illinois, then, what applications are those?

MS. SAWYER: I'm not sure I understand the question.

MR. TREPANIER: Just putting these first two questions together, you responded to the first question that you did find some materials in California that were material substitution that lowered VOM emissions.

Then, in Question 2, regarding these generally are less expensive, my question is what processes -- what materials were these that were identified in California that would fulfill that?

MR. BECKSTEAD: I can give you one example where in a can coder in California was packing food which required a different coding than the Illinois application.

There was a difference in stringency of what was required of the materials is what I'm saying. I mean, a can coder is a can coder. What you're putting in the can makes a difference on what the characteristics that the coding material can have.

Our sources in Illinois said they can't use the can coding material that California has even though it's meeting limits specified by South Coast.

MR. TREPANIER: In using your example, were you able to confirm or check that information?

MR. BECKSTEAD: Yes, we did to the best of our abilities.

MR. TREPANIER: In your example, how was that done?

MR. BECKSTEAD: By direct contact with the supplier, direct contact with the source themselves and with familiarity with the Illinois source and its operations and contact with them through outreach meetings and discussions about what limits we were proposing.

MR. TREPANIER: The supplier, was that the supplier of the reformulated or the substitute material that you contacted?

MR. BECKSTEAD: Yes.

MR. TREPANIER: Who gave you the information that that material wouldn't meet the code for Illinois?

MR. BECKSTEAD: The impacted sources.

MR. TREPANIER: Were you able to check that information?

MR. BECKSTEAD: Yes, I did the best I could.

MR. TREPANIER: How was that information checked?

MS. SAWYER: Didn't he just -- he answered this question.

MR. TREPANIER: I think the previous answer was that the information was checked with the supplier and with the impacted source.

MS. SAWYER: He said he also checked the source in Illinois.

MR. TREPANIER: That was the source of the information? The source of the information also couldn't be the checker of the information. The source and the checker of the information are separate entities.

MS. SAWYER: Well, the checker is the supplier.

MR. TREPANIER: The supplier wasn't able to make a determination whether or not that material met Illinois code.

MR. BECKSTEAD: We also discussed this with permit engineers who are very familiar with the sources from dealing with it through the years and they are familiar with the operations to confirm what the source was saying was, in fact, true and what we had on file from permit application.

MR. TREPANIER: Were the permit engineers familiar with what Illinois code requires for inside a food can?

MR. BECKSTEAD: I would think they would have that knowledge. It's not part of their business, per se, on a day-to-day operation, but I would think they

would be familiar as to what the firm was canning and what they were doing, yes.

MR. ROMAINE: I would qualify that. That's probably not knowledge that is generally known by most permit analyst, but an analyst who has been specializing in can coding operations over the years may, in fact, have that level of knowledge.

MR. TREPANIER: Who was that engineer?

MR. BECKSTEAD: I interface with the permit

engineers so often at the various sources, I can't recall at the present time.

MR. TREPANIER: Would the agency be able to provide that information?

MS. SAWYER: Why do you want it?

MR. TREPANIER: I'm making an inquiry to see if there is -- I believe that the rulemaking is substantially predicated on the basis that there was unavailable material substitutions and reformulations sufficient to meet the ROP requirements other than through the proposal.

I think that's what Mr. Beckstead's testimony has gone to. Now, I have asked questions on how that was determined.

MS. SAWYER: Well, it isn't. So I don't think that's relevant.

MS. McFAWN: It isn't what?

MS. SAWYER: It isn't predicated on what he

just said.

MS. McFAWN: That is not why you are posing the --

MS. SAWYER: It's less expensive. It's the most cost-effective means to achieve reduction.

MS. McFAWN: So his testimony is not

that these things are not available to Illinois manufacturers, but it's just that they are more costly?

MS. SAWYER: No. He -- his testimony is that they can't use that particular product, but that isn't why we are proposing this rule versus another.

MS. McFAWN: The technical feasibility is not part of your testimony, Mr. Beckstead?

MR. BECKSTEAD: Yes, it is.

MS. McFAWN: It is?

MR. BECKSTEAD: Yes.

MS. McFAWN: Is it your testimony that some of these codings that are used in the South Coast are not available to manufacturers in Illinois?

MR. BECKSTEAD: For the particular applications in Illinois, the reformulation on material substitution materials, those are not available.

MS. McFAWN: It's not that they are more costly, it's just that they are not available?

MR. ROMAINE: Let me interrupt.
MS. McFAWN: Certainly.
MR. ROMAINE: The evaluation Gary was

performing was in the context of coming up with additional specific command and control regulations. So the determination was not necessarily whether one particular manufacturer in any particular circumstances might, in fact, be able to use particular codings with minimal changes and some efforts, but the question was trying to be reviewed whether, in fact, at this point in time could Illinois successfully adopt the South Coast rules that required use of these materials across the board for an entire category of source.

That is where Mr. Beckstead's review identified difficulties with making that widespread change that would affect all manufacturers of cans.

MS. McFAWN: To get back to the question still pending before the agency, you said that you consulted with permit analysts within Illinois EPA in making this conclusion?

MR. BECKSTEAD: As part of it, yes.

MS. McFAWN: Could you perhaps provide to the board and the participants in this proceeding a list of who you talked with inside of the agency not so they will be called here as being witnesses, but so that we understand better the chain of your

research?

MR. ROMAINE: Maybe I can simply answer the question.

MS. McFAWN: All right.

MR. ROMAINE: My expectation is that the people -- the senior analyst that might have this information that Gary probably talked to would have been Harish Desai, Dan Punzak and Mangu Patel, M-A-N-G-U, P-A-T-E-L.

There may have been a number of other analysts who had been recently working on them, but they do not have the years of experience that those individuals have.

MS. McFAWN: Thank you, Mr. Romaine.

MR. TREPANIER: Thank you.

Question No. 3, regarding your testimony of the unavailability of substitute coding applications, where and when did the outreach readings for the 15 percent ROP plan occur?

MS. SAWYER: Objection, irrelevant.

MR. TREPANIER: This was said in your testimony as a source of your knowledge.

MS. SAWYER: These were rules that were

adopted by the board. I don't see where our outreach is relevant.

MR. TREPANIER: I think that we just had an extended discussion to find that this information and the basis that the chain of the research is an important issue to the board and this is a very similar question.

THE HEARING OFFICER: Can the agency answer the question?

MS. SAWYER: Sure.

MR. BECKSTEAD: Meetings were held in various locations and at various time frames or times during the 1993 and 1994 time frame. The meeting times and places are a part of the record of the 15 percent rulemaking proceedings.

MR. TREPANIER: Thank you.

Part B, could material substitutions or reformulations have become available since the 15 percent ROP plan outreach meeting?

MR. BECKSTEAD: Technological advancement is always occurring given the incentive to do so like marketable emissions reductions as afforded by the proposed rule. Some material substitutions could be available, but from the data gathered in the 15

percent ROP rulemaking, approximately seven to ten years are necessary for a new material to become marketable.

MR. TREPANIER: In Part C, I apologize. It appears that not all of the question was written down, but it reads, if substitute quoting applications were available -- and what I meant and maybe you will be able to answer that -- if these coding applications became available, how would you become aware of it?

MR. BECKSTEAD: I generally become familiar with the advancement of technology and what is occurring when we propose new regulations and the impacted source and we discuss what we are going to do under the old command and control scenario.

That is generally when we heard about new materials being available, new control technology being available, and discussions with impacted sources is generally where we gather that information, discussions again with permit engineers or doing the issuing of permits, operating permits.

MR. TREPANIER: Specifically, here in this instance, you mentioned about the command and control. In this instance, now since those 15

percent ROP outreach meetings in '93 and '94, if substitute coding applications were to become available, how would you have knowledge of that?

Did these command and control meetings that you are speaking of occur?

MR. BECKSTEAD: I missed that question.

MR. TREPANIER: I'm wanting to know, and maybe you've answered the question, but you said that you learned about these when you are meeting with sources regarding command and control regulations. Did those meetings occur?

MR. BECKSTEAD: We are not proposing a command and control situation here.

MR. TREPANIER: I'll go on to my next question here. Question No. 13, I consider that we have just made lots of progress.

Regarding your testimony upon the cost of controls for the fixed group and internal floating tanks, Subpart A, is the $8,000 to $13,000 cost per ton a one-time cost?

MR. BECKSTEAD: It is an estimated recurring annualized cost per ton to control.

MR. TREPANIER: And how would that -- is there a possible comparison with that number comparing that

to an after burner technology?

MR. BECKSTEAD: From discussions with our impacted sources, generally a vapor recovery system or these closed seal vapor seals are used. After burners are not real practical for an application of storage tanks. I'm just a little confused at that

question, sir.

MR. TREPANIER: Okay. Let's just move on. I may have misunderstood the material myself.

Okay. I'll drop number C having gotten your answer to number one.

Question 14, is it your testimony or belief that at about minimum, the cost is approximately $8,000 per ton per year from VOM prevented from entering the atmosphere from fixed room tanks and internal floating room tanks?

MR. BECKSTEAD: Based on the information presented by affected sources in the 15 percent ROP rulemaking proceedings, it is my testimony that the estimated cost for controls is in the range $8,000 per ton.

MR. TREPANIER: Is that now a measure that has been implemented?

MR. BECKSTEAD: Not to the levels we are

talking here. It's been implemented for tanks greater than 40,000 gallons. We're talking generally 20,000 to 40,000-gallon tanks with lower vapor pressure requiring tighter seals and the more cost intensive at that size tank than what we were confronted with in the 15 percent rulemaking.

MR. TREPANIER: This type of control measure that was implemented resulting from the 15 percent rule, have you gotten some feedback on if the actual

costs were realized?

MR. BECKSTEAD: I haven't personally, no.

MR. TREPANIER: So it is possible that the cost is actually less than $8,000?

MR. BECKSTEAD: That is a possibility. It could be greater than that also.

MR. TREPANIER: That information would be available if somebody were to seek it out?

MR. BECKSTEAD: I would think so.

MR. TREPANIER: Okay.

MR. BECKSTEAD: I'm informed that we wouldn't ask for cost of data control at this stage of the rules.

MS. McFAWN: So you mean that the agency wouldn't have that information available if it was

sought from you?

MR. BECKSTEAD: No, correct. That's correct.

MR. TREPANIER: So the testimony that you gave was based on information that you received in '93 and '94 as an estimated cost of control rather than an inquiry on what was the actual cost?

MR. BECKSTEAD: It is an estimated cost of control, yes.

MR. TREPANIER: My next question starts on the second page of the questions that I have for you. It begins on Page 3 regarding, quote, it was assumed that add-on control would be required and that the

low solvent materials are not currently available. Why that assumption?

MS. SAWYER: Can I ask is this different than your other question, the one that you asked, your first question?

MR. TREPANIER: It seems to be very similar. I'll withdraw that and then continue.

Well, maybe with the second part of that question it would make more sense, then. Why the assumption, when the California rules, you were applying for the Chicago nonattainment area specifically recognizes low solvent adhesives with

the 2.1 pound VOM gallon in the very rule?

So my question is when the California rules requires a 2.1 VOM gallon adhesive to be used, why did you assume that those would be unavailable in Chicago?

MS. SAWYER: I think he did answer that question already.

MR. TREPANIER: We talked about can codings, but maybe this would help the board to understand why the assumption was made on low solvent adhesives.

MR. BECKSTEAD: This assumption was based on the best information available from the sources affected by the previous rulemaking.

Reformulation or substitute materials

are currently not available in the marketplace for the Illinois types of applications.

MR. TREPANIER: So if we -- so would you assume that this is a situation similar to the can coding that in Illinois, they've got -- where they are using the glue, the rules are a little bit different and they can't use this glue that's being used in California?

MR. BECKSTEAD: Yes.

MR. TREPANIER: It would have been the same sources, the -- would it be the same permit engineers that would have provided that information?

MR. BECKSTEAD: I don't recall talking extensively with permit engineers on this analysis, on the adhesive side of it.

MR. TREPANIER: Okay.

MR. BECKSTEAD: I would also like to clarify that California regulations also have the option for sources to use add-on controls as we do in Illinois. Not all sources in California are meeting a pounds per limit per gallon -- pounds per gallon limit in complying with their regulations. Add-on controls are being used also.

MR. TREPANIER: Is there a 2.1 VOM per gallon low solvent adhesive available in California?

MR. BECKSTEAD: I think there are applications in California that sources are using, yes, as I

recall.
MR. TREPANIER: Is it your conclusion that those sources are not available for use in Illinois?
MR. BECKSTEAD: They are available for use, but they don't fit the applications in Illinois.
MR. TREPANIER: What's the basis of your

knowledge on that?
What's the chain of research?
MR. BECKSTEAD: Discussions with the impacted sources in the previous rulemakings.
MS. McFAWN: Do you know what the difference is? I mean, what's different in California from Illinois, for instance, in the can -- concerning the can coding that you said. It was the product going into the can. What's the difference here between south California and Illinois?
MR. BECKSTEAD: As I recall, one of the primary hurdles is difference in climates here in Chicago and the South Coast area, the fact that it's a much warmer climate and they can operate with lower solvent materials because of and they get the same flowability and get the same coverage and yet are able to use less solvent because of year-round better operating conditions temperature-wise. It was a primary hurdle that I kept hearing in all the various surface coding applications.
MR. TREPANIER: Were these outdoor

applications.

MR. BECKSTEAD: Sometimes the drying will occur in the outdoors. Not all of them, but

sometimes they roll them into a big room and just let them air dry a little. We, in Chicago, sometimes have to use baked operations.

MR. TREPANIER: Some of these materials, they are used in a controlled climate, isn't that right? These materials are being used in a controlled climate so the weather difference between Chicago and California is not a factor?

MR. BECKSTEAD: I'm sure that's true too.

MR. ROMAINE: To add something a bit to this discussion. For adhesives, you cannot assume that there is one adhesive that will fit all categories. When Gary is referring to applications, he is referring to a specific combination of materials. That includes paper, plastic, plastic to plastic, metal to metal, aluminum to brass, wood to paper, wood to wood, and because of those demands, there has to be an adhesive that meets the particular substrate requirements, strength requirements, exposure requirements, be it the temperature, heat, how many cycles and solvent.

So that adhesives are a very difficult category to deal with because of all of those unique products' specific features. The applications to

cans have similar characteristics obviously. The contents that was put into the can affects what lining is needed. I would say this is probably a more uniform category than adhesives.

MR. TREPANIER: How big of a source are we talking about when we are talking cans and adhesives?

MR. BECKSTEAD: The question again is?

MR. TREPANIER: How large of a source are we talking about? Is this a little minutia? Is this a piece of minutia or are we talking about a substantial source?

MR. BECKSTEAD: This is a category of emissions. There are several sources in each category of emissions.

MR. TREPANIER: So this is a significant source from what I'm hearing?

MR. BECKSTEAD: Can coding is an appreciable amount of our emissions inventory.

MR. TREPANIER: I'm going to skip my next question. It appears more like a statement than a question.

Going on to the one after, referring to Page 4 of your testimony, the non-CTG emissions

categories, what is the basis for the assumption -- what is the basis for, and I quote, the assumption was made -- was also made that South Coast material limit would not be met and that Illinois sources would require add-on controls. I think maybe we have answered that one already. I'll withdraw it.

On Page 5 of your testimony, starting now with regarding 4.0, analysis of the top 50 emission sources, your analysis showed 4192 tons per season of emissions reductions that were identified as potentially available from the 50 largest emissions sources in the Chicago nonattainment area or equivalent to 27.4 tons of reduction per day. You state this approach would provide the reduction necessary to meet the 1999 ROP level.

How much beyond the 1999 ROP level is this?

MR. BECKSTEAD: The agency has estimated that 12.6 tons per day of emission reductions are needed to meet the 1999 ROP target level. The analysis of the top 50 emission sources indicates that 24.7 tons per day of emissions reductions are provided, which is 14.8 tons per day more than is

needed.

MR. TREPANIER: How much could the -- your estimated costs of the -- of this alternative be lowered if less than the most stringent controls were applied to these 50 emitters if they were required -- if they were the most cost-effective way and still meet the 1999 ROP level?

MR. ROMAINE: I think we need to back up a bit and give some explanation.

When we talk about the largest 50 sources, what really occurred was that the technical staff in the Bureau of Air reviewed the VOM control measures used by the larger sources identified as being participating sources under the program.

I think, in fact, the cutoff was VOM emissions of about 50 tons per season. The goal of review was to identify units where significant improvements could possibly -- possibly be made in the VOM control measures.

For example, if no control were present on a unit where a control is technically feasible, the unit was flagged for additional control. Likewise, if the present control devices were only limited

for moderate effectiveness, the units were flagged for upgraded controls with the high efficiency device.

The important thing is that this evaluation did not involve a detailed review of the circumstances of individual sources considered site-specific costs of making them change it.

So as a result, some of these changes that we have identified as resulting from the most stringent controls, you are right, could be, in fact, very expensive. I don't think that we presented this as a demonstration that, in fact, there were, in fact, a comprehensive alternative that would involve applying these control measures to these 50 sources.

Rather, it was simply a starting point that was then relied upon in the economic analysis to develop a couple of alternatives for review.

MR. TREPANIER: What's the value, then, of this analysis under 4.0 if what you are analyzing is emission reductions double -- practically double what we are looking for and with no eye towards efficiency of the application of these control measures?

MR. ROMAINE: I guess the point is this was simply the first step in the evaluation to identify where areas of control could possibly be improved.

When we got to the next step in coming up with alternatives, that is where we then factored in some economic information to select a particular

combination of control measures that would result in -- within those constraints for command and control at lesser costs.

So one option that was selected was identifying eight sources that by themselves would minimize the number of participating sources, I believe, and then another option was to -- I came up with 12, I think. A further description of that will be discussed in our economic testimony.

MR. TREPANIER: Does your testimony give a cost of control if this -- if the top 50 emitting sources were required to install what kind of controls that you have here, the best available?

MR. ROMAINE: No.

MR. TREPANIER: There is no estimate in the cost of that control?

MR. ROMAINE: No.

MR. TREPANIER: Regarding your testimony at

2.1, estimated emission reductions, does the grand total of 6.82 tons per day of emissions reductions identify -- fulfill the 1999 ROP level?

I think I have the answer to that question already. I understand you just said that was 12.6?

MR. BECKSTEAD: 12.64 is the required level.

MR. TREPANIER: Thank you.

Would you be able to give an estimate

of the cost of control -- and I'm reading the last question on the second page of my questions. I'm reading from my last question.

Are you able to make an estimate of what the lowest cost would be if the minimal level of reduction necessary to meet the 1999 ROP were found within the 50 largest VOM emitters in the Chicago nonattainment area?

MR. BECKSTEAD: Those analyses, Options 1, 2 and 3, are an attempt to address that specific question.

We looked at 12 percent reduction of all sources greater than -- having emissions greater than ten tons per ozone season. Just a uniform 12 percent of all of those.

We also analyzed from two subsets from those top 50 emitters and asked ourselves the question if we got it all from, say, the eight with the greatest potential for reductions, what kind of cost would that be? If we got it from the 12 most cost-effective, what kind of cost are we looking at there? That's more economic questions than technical feasibility, I feel.

MR. TREPANIER: So I understand you, that information is not available today regarding what would be the cost of control if the 50 largest emitters were commanded to make the most economic

controls to accomplish our 1999 ROP?

MR. BECKSTEAD: The agency feels that we have addressed the question in the two or three alternatives that were analyzed, the 12 percent across the board, the eight largest, the 12 most cost-effective. We feel that we are addressing that issue.

MR. TREPANIER: Do you know the number, what the cost per ton would be if the 50 largest emitters were commanded to reduce their emissions in the most efficient manner -- economical manner to meet the ROP?

MR. BECKSTEAD: I would refer to section --

MS. SAWYER: Can I suggest that we defer these questions, Mr. Trepanier, to the specific economic section of the questions. I think we would be able to provide you with a better answer at that point. We will go through what we did and I think it would be more appropriate to answer it at that point.

MR. ROMAINE: I would prefer to answer it.

THE HEARING OFFICER: At this point, Bonnie, I would like to say that I have a couple questions on the estimated costs too. So I would like to have them answered by Mr. Beckstead.

In a couple of places in his testimony in Section 4, in the second paragraph, he says that

the current level of control of each unit was compared to the most stringent level of control currently known available and other reductions were estimated.

In the last section of 50, you say with the paragraph -- the second paragraph, in applying the most stringent controls known to be available to the 50 largest VOM sources in the Chicago nonattainment area, we have sufficiently

conducted, however, the cost of these control measures are estimated to exceed the cost of the California sources.

At some point, I believe he estimated. I was just wondering if you have that number.

MR. BECKSTEAD: The second comment, it was just a general statement. If we have -- we come to the rationalization by applying South Coast, and we had a range of 8,000 to 26,000 in applying those, if we go with the most stringent, which would be even above the California regulations, we would -- our estimate was we would probably exceed that range of cost. A specific number was not generated, no.

THE HEARING OFFICER: So your testimony really is that you expected the cost to exceed?

MR. BECKSTEAD: Yes, right, yes.

THE HEARING OFFICER: Okay. Does that answer your question, Mr. Trepanier?

MR. ROMAINE: The question I heard asked is what is the most cost-effective way to control the top 50 sources? The simple answer is this trading program. That's why we are putting forward this trading program and as stated in the technical support document, we have estimated the cost of,

I believe, $2,800 or $2,900 a ton.

MR. TREPANIER: Well, you misread my question, but you did provide some information. That was the last question that I had.

THE HEARING OFFICER: Are there any other questions particular to Mr. Beckstead?

MS. MIHELIC: As a follow-up to the previous question, did you look at what it would take to control the top 50 sources -- I guess the first question is what do you mean by source; an entire facility or just a unit at a facility?

MR. BECKSTEAD: A source is an entire facility.

MS. MIHELIC: So when you say the top 50 sources, you are talking about an entire plant?

MR. BECKSTEAD: Yes.

MS. MIHELIC: So not just one emission unit at a plant?

MR. BECKSTEAD: Right.

MS. MIHELIC: Did you look at what it would take at those 50 sources to not get the most

stringent control that would achieve double the reductions needed, but what would be needed to obtain the 12-ton per day reduction at those 50

sources?

MR. BECKSTEAD: We did it in the subsets of the eight largest emitters and the 12 most cost-effective.

MS. MIHELIC: But you did not look at the 50?

MR. BECKSTEAD: We looked at the 50 for total emissions available, not for cost factors.

MS. MIHELIC: And not for cost factors based on only 12-ton per day reduction and not a 27-ton a day reduction?

MR. BECKSTEAD: No. We just expected that it would be greater than the California regulations.

MS. MIHELIC: And that you expected that the costs of controlling to the most stringent control would be greater than the California standards, is that correct?

Is that what is stated in the technical support documents?

MR. BECKSTEAD: Yes.

MS. MIHELIC: Do you state anywhere in your technical support document that you expect it would also be more -- it would cost more to control only the 12 tons per day needed for those 50 sources?

MR. BECKSTEAD: I think that's what we were

in search of in the analyzation of the data, what's the best approach.

MS. MIHELIC: Okay. But I'm saying did you -- do you have anywhere in here that for the 50 sources -- for 50 sources out there, is there anywhere in your testimony or in the technical support documents an analysis or a conclusion of what the costs would be for obtaining only a 12-ton per day reduction from those 50 sources, all 50 sources?

MR. ROMAINE: I think that's implicit in the analysis. It would be more than we evaluated and came up with for the specific alternatives. You would have to tell us how you would want to assign that emission reduction among those 50 sources.

But the reason we came up with the particular alternatives is that was a reasonable way to approach those 50 sources to get the required 12-ton reduction with some attempt at minimizing costs.

MS. MIHELIC: You are saying you assumed it would be more costly to control 50 than for, say, just the 12?

MR. ROMAINE: Yes.

MR. SAINES: But we're talking about two different things. At one point, we're talking about the most stringent controls known and you -- in your technical support document, you have estimated that it would be technically feasible to control the largest 50 sources with the most stringent controls known generating 27 tons per day, which is in excess of what is needed, is that correct?

Okay. Is it your testimony that you did not, then, look at those same 50 sources and instead of applying the most stringent controls known, you applied lesser controls with the same 50 sources through command and control to generate 12 tons?

MR. ROMAINE: I think, as you phrased the question, we did not do the specific analysis that you are suggesting. We did not have the information to identify some intermediate level of moderate control. We also didn't have the cost data to identify what would be the cost of those moderate levels of control. So it was beyond the scope of our analysis.

We did try to identify within the constraints evaluation being done for those 50 sources what would be necessary or what would be done to achieve the rate of progress plan, working from that population of 50 sources, while minimizing costs.

MR. SAINES: Thank you.

MS. MIHELIC: Did you --

MS. SAWYER: Are you asking your prefiled questions?

MS. MIHELIC: No. Because my prefiled questions -- I'm sorry. I thought we were on to no more prefiled questions being asked.

THE HEARING OFFICER: Are you just asking follow-up questions to these questions?

MS. MIHELIC: Right. Well, I can wait. There are additional questions I have to ask.

MR. FORCADE: We had prefiled questions relating to technical support document Appendix E. I'm not certain whether this is not the time for that. Is there some other person we should ask?

MS. SAWYER: Right. Once we get the panel together, that would be the best time to ask.

MS. McFAWN: Which panel is that?

MS. SAWYER: When we get everyone back up and we go into -- E doesn't relate to the technical feasibility, basically.

THE HEARING OFFICER: I guess my question is are these particular to his testimony --

MS. MIHELIC: Yes.

THE HEARING OFFICER: -- or just generally about the proposal?

MS. MIHELIC: Particular to his testimony.

MS. SAWYER: Can I ask a little further? If they are particular about the economics, I know there is some crossover, but really, it would be better to hold those questions until we have the economic panel. They are not?

MS. MIHELIC: No.

MS. SAWYER: Okay.

MS. MIHELIC: At least I don't believe that they are.

Did the agency --

MS. McFAWN: Ms. Mihelic, can I interrupt for a moment?

Is Mr. Beckstead going to come with the economic panel tomorrow?

MS. SAWYER: No.

MS. McFAWN: Go ahead, Ms. Mihelic.

MS. MIHELIC: Did the agency assess the technical feasibility of installing the most stringent control on the eight sources with the greatest emission reduction potential?

MR. BECKSTEAD: Well, that was analyzed in

Section 8. If you refer to Section 8 and the tables --

MS. MIHELIC: That is in the economic impact analysis, that's not in the technical feasibility analysis?

MR. BECKSTEAD: No, it's not. It's in Section 8.

MS. MIHELIC: Did the agency assess the technical feasibility of actually installing that kind of control on these eight sources?

MR. BECKSTEAD: We knew that these type of controls are being used. They are known to be on similar sources.

MS. MIHELIC: When you say similar sources, in the Chicago area or outside of the Chicago area?

MR. ROMAINE: We did not limit our comparison to just the Chicago area. It's in general use.

MS. MIHELIC: Did the technical feasibility analysis look at the particular eight sources in question to assess the technical feasibility of installing that control at that particular facility?

MR. ROMAINE: No. There was not a separate review of technical feasibility beyond the general review of feasibility conducted for all 50 sources or for the 50 biggest sources.

MS. MIHELIC: So it also wasn't done with the

12 sources --

THE HEARING OFFICER: Can I interrupt for a second?

MS. MIHELIC: Certainly.

THE HEARING OFFICER: You are asking questions of Mr. Beckstead and yet Chris Romaine is answering them anyway. I don't know if these questions are directed to Gary after all.

MS. MIHELIC: Well, it's on technical feasibility and I don't really know who is here to testify as to that.

THE HEARING OFFICER: Right. And I was going to ask -- Mr. Beckstead, your testimony you submitted deals mostly with economics, in my humble opinion. I'm wondering -- I know you can't be available for

the 10th and 11th. That's because of a prearranged situation. You will be available at another time if we do have to hold another hearing?

MR. BECKSTEAD: Sure.

MS. McFAWN: Also, is there anyone else at the agency that can testify or answer questions related to your testimony?

MS. SAWYER: Yes, Mr. Romaine.

MS. McFAWN: Mr. Romaine?

MS. SAWYER: Yes.

THE HEARING OFFICER: And additionally, Sarah -- I know Sarah Dunham has also prefiled some

testimony.

Is your testimony purely economics or is it feasibility?

MS. DUNHAM: Purely economics.

MS. SAWYER: But we can answer this question one more time that Ms. Mihelic is asking right now. I would like to get this a little straight because I think there is some confusion.

THE HEARING OFFICER: I think I have a couple questions just to go to Mr. Beckstead and I think we might as well just bring the whole agency panel up, then, because it seems that we are doing

questions for all of them. I don't see these are questions just for Mr. Beckstead. So if you could hold off on your questions, let me ask a couple of questions.

MS. MIHELIC: I just have two prefiled questions I would like to ask, then, of Gary Beckstead, which I believe goes directly to his testimony.

THE HEARING OFFICER: Well, why don't you ask those then.

MS. MIHELIC: Okay. In my prefiled question, Question No. 3., D., of the modified questions. It's the third to the last page of the prefiled questions.

The question is what was the amount

of reductions in VOM achieved in South Coast Air Quality Management District Area by the California rules?

MR. BECKSTEAD: Six, B.?

MS. MIHELIC: Yes.

MR. BECKSTEAD: What was the amount of reductions in VOM achieved in the South Coast area by the California rules?

MS. MIHELIC: Right.

MR. BECKSTEAD: We didn't analyze how much reductions South Coast were getting.

MS. MIHELIC: Did the agency -- this is No. 7.

Did the agency determine how many sources in the Chicago area would satisfy the California rules despite not being required to do so in Illinois and to clarify that, that's currently satisfying the California requirements?

MR. BECKSTEAD: Yes. In the analysis, if the source had sufficient controls to meet what California was specifying, there were no reductions available. So we moved to the next source.

MS. MIHELIC: How many sources actually meet the California rules?

MR. BECKSTEAD: I do not have an exact count on that. All I have is total emissions available, which was the focus on the analysis.

MS. MIHELIC: Is there any documentation that you do have, not with you today, that would show how many sources actually meet the California rules?

MR. BECKSTEAD: We didn't keep the information because that was not the focus of our rule.

MS. MIHELIC: If some of these sources have already met this level of remission reductions, wouldn't this impact the costs associated with the sources coming into compliance with these rules?

MR. BECKSTEAD: No, it would not.

MS. MIHELIC: If they already are in compliance, wouldn't the cost be zero to come into compliance?

MR. BECKSTEAD: We calculated an annual cost per ton of VOM reductions. There were no reductions there. It would be the cost of that source.

MR. ROMAINE: Let me add a clarification. In terms of the regulatory analysis to support the rule evaluating the cost effectiveness and putting in the control measures of what's being required, Gary is correct, that that information would not change that cost effectiveness value.

In terms of the overall impact of the rule, clearly, if there is some source that has already complied with the rule, all of the

sources and all of the reductions, the total cost would obviously be less.

Some sources are already in compliance,

but that is not the type of evaluation that is done for a command and control rule. It's only one piece of the evaluation for the command and control rule.

MS. MIHELIC: My questions go to -- more to cost. So I will wait to ask those at a later time.

MS. McFAWN: What about your questions one through five?

MS. MIHELIC: Those are questions that I was revising and I was told to wait to ask them until the panel came up. These are going to the technical feasibility assessment and economics. It appears that they are not willing for those to be asked at this time.

MS. McFAWN: So you will be asking those when more of the economic experts of the agency are here?

MS. MIHELIC: Correct.

MS. McFAWN: Thank you.

THE HEARING OFFICER: Are there any other questions specific for Mr. Beckstead?

I have one just for my own benefit. You stated in your testimony today what was in there, but I didn't recall you stating whether or not you

believe, in your opinion that the ERMS proposal is technically feasible.

MR. BECKSTEAD: Yes. I do believe that it is technically feasible.

THE HEARING OFFICER: And then there is one other question that I think you can answer.

Does the ERMS proposal prohibit the use of any alternative solvents, adhesives, or other alternative things for the use of command and control technology?

MR. BECKSTEAD: No. In fact, it's an incentive for sources to find the most economic and most advantageous way to get reductions particular to their application.

THE HEARING OFFICER: That's all the questions that I have. Could we have one second?

MS. ANN: I have three questions on the technical support document. I don't know if you can answer them all.

First, I'm just going to ask you just a general question. How are you going to change from tons per day to tons per season?

MR. BECKSTEAD: How do we change?

MS. ANN: Right.

MR. BECKSTEAD: We have the operating schedule of each source.

MS. ANN: Okay. So there is not just a certain amount of days that you are going to multiply?

MR. BECKSTEAD: No.

MS. ANN: It's specific to each source or unit?

MR. BECKSTEAD: Yes.

MS. ANN: Okay. In the summary of the technical support document, it says that -- it's on the last page. It says small businesses that remain in the ERMS, the ACMA, provides an absolute cap on control costs of $10,000 per ton, but that's not stated anywhere in the proposed rules. Was that just decided again?

MR. BECKSTEAD: She's talking about the ACMA?

MS. SAWYER: What was your question?

Could you repeat your question?

MS. ANN: In the conclusion of the technical support document, it says for small businesses that remain in the ERMS, that ACMA provides an absolute CAAPP on control costs of $10,000 per ton, but that's not stated anywhere in the rules, the proposed

rules.

MS. SAWYER: Could you ask that question later when we have the economic portion?

MS. ANN: Yes.

THE HEARING OFFICER: Is that it?

MS. ANN: Yes.

MS. MIHELIC: I have one more follow-up question.

Who are the 50 sources?

MS. SAWYER: Who are what?

MS. MIHELIC: The 50 sources.

Is there a list provided anywhere?

MR. BECKSTEAD: We did not include it in our technical support document and I don't have the information with me to list them at the present time.

MS. MIHELIC: Is it available anywhere? I mean, is there a list available somewhere?

MR. BECKSTEAD: Yes.

MS. McFAWN: Why don't you bring it to the next hearing?

MR. FORBES: Yes, we will provide the list.

MS. McFAWN: Thank you.

THE HEARING OFFICER: Mr. Newcomb?

MR. NEWCOMB: I have one quick question.

Did the agency estimate cost inefficiencies for implementing controls for sources

other than point sources with the narrow exception of the cold solvent cleaning?

MS. SAWYER: Could you repeat the question?

MR. NEWCOMB: Did the agency estimate cost inefficiencies of implementing controls for sources other than point sources with the narrow exception of cold solvent cleaning?

MR. BECKSTEAD: The purpose of this technical feasibility analysis was for point sources. That's where my involvement has been. That's why I'm testifying.

MR. NEWCOMB: Can I take it, then, that your answer is no?

MR. FORBES: In terms of -- I'll answer that in terms of rate of progress plan, we assess reductions -- possible reductions from all sectors.

But specific to Mr. Beckstead's testimony, that goes to the technical feasibility of the stationary source proposal, which is the ERMS rule.

MR. NEWCOMB: Thank you.

THE HEARING OFFICER: Are there any other questions at this time of Mr. Beckstead? Thank you.

Let's take a 10-minute break.

(Whereupon, after a short break was had, the following proceedings

were held accordingly.)

THE HEARING OFFICER: I believe all the witnesses are still under oath. We will start out with ERG's questions.

MS. ROSEN: Thank you. Good morning. My name is Whitney Rosen. I'm legal counsel for the Illinois Environmental Regulatory Group.

I would just like to briefly make a two-sentence statement. ERG worked closely with the agency in an effort to achieve consensus on the proposal. We appreciate that opportunity. We will be providing testimony at a later date based on some outstanding issues and our questions today are in an effort to help clarify the agency's testimony in the proposal.

THE HEARING OFFICER: When you go through your question, please state the page, when they were filed, if they are different. I know you have a lot

of questions on 320 at a later filing date.

MS. ROSEN: Yes. Thank you.

The document, which I will first refer everyone to, is our original filing that was dated January 14, 1997. These are the prefiled questions of Illinois Environmental Regulatory Group. We start on Page 2, Question 1, addressing Subpart A, Section 205.150.

On Page 22 of Mr. Romaine's testimony,

he discusses the applicability of new source review under the ERMS program. He states, quote, U.S. EPA's regulations for evaluating changes in emissions are associated with projects distinguish between actual and allowable emissions and do not consider emission increases that are exempt from the federal definition of modification.

I have two questions. A., what are the emission increases that are exempt from the federal definition of modification?

MR. ROMAINE: As addressed by 35 Illinois Administrative Code 203.203, some of the changes that are not considered modifications under new source review are routine maintenance and repair of equipment, increases in hours of operation or

production rate, if those are not prohibited by enforceable permit conditions, and changes to an alternative fuel or raw material that a unit is capable of accommodating and again, is not prohibited by the enforceable permit conditions.

MS. ROSEN: Those are the exemptions that are included in 203.203?

MR. ROMAINE: I believe so, yes.

MS. ROSEN: Okay. And you are distinguishing those maybe between the ones that are federal exemptions?

MR. ROMAINE: Yes. Those are the regulations

that are in the state's new source review program that are implemented through the state's rules. Those, however, are based upon the federal regulations. Those are, in fact, the exemptions that are also found in the federal regulations as well.

MS. ROSEN: B., will the -- I'll modify that this -- will the federal exemptions or those exemptions found in 203.203 continue to apply to sources once they are subject to the ERMS program?

MR. ROMAINE: Yes. Those exemptions would continue to go with the new source review program.

MS. ROSEN: Thank you. Question 2, on Page 22 of Mr. Romaine's testimony, he states that as there cannot be a direct relationship between seasonal VOM emissions for purposes of ERMS and applicability of new source review, implementation of new source review under ERMS only extends to the emission offset requirement.

Can the agency state generally what other requirements a source will have to comply with in order to fulfill the new source review requirements and how those requirements will be coordinated with the requirements of the ERMS program?

MR. ROMAINE: Yes. To receive a construction permit for a major project, in addition to the offset

requirement, a source must show that it will control nonattainment emissions to the lowest achievable rate or LAER. This is the case-by-case determination of the most stringent control practices applicable to the source.

In some cases -- as I mentioned earlier, BACT may be acceptable instead of LAER -- a source must also perform analysis of alternatives to the proposed project showing that the benefits

of the project outweigh the environmental impacts and certify that other major sources in Illinois are in compliance.

Then, upon startup of that major project and thereafter, the source must demonstrate that the lowest achievable emission rate is being achieved as specified in the construction permit.

If we are talking about a minor project, the source must demonstrate that the proposed project is, in fact, minor.

Then, you asked how will this be coordinated with the requirements under the trading program? The only change under the new source review rules as a result of the trading program is to convert the offset requirement to a seasonal basis in terms of ATUs.

We believe that this change is consistent with Clean Air Act. We don't need any

other changes to new source review rules themselves.

Other requirements of new source review are unchanged. The applicability provisions for new source review, that is the definition of what is a major source, a major modification, provision for netting is unchanged. Changes to those parts of

new source review program can't be made as part of the rules for the trading program.

MS. ROSEN: I know we did try to get rid of questions which may have already been asked and answered. I apologize if our decision might result in some repetition.

Question No. 3(a), in general, if a facility has received its allocation of allotment trading units and its post-year 2000 and made its required reductions, would it be allowed to make any changes, modifications, or introductions of new processes within the facility beyond 2000 as long as it keeps its VOM emissions below the admission level?

MR. ROMAINE: The question that's posed is really combining new source review rules and ERMS again. I said the situation with the -- under the ERMS will not affect the new source review status. This concept that you mentioned staying within a particular limit, I think is referring back to the concept of a plant-wide applicability

limit. This is something that U.S. EPA is considering as part of changes to its new source review regulations.

Under this concept, if an appropriate plant-wide applicability limit were set for a permit or is set for a source in a permit, this source could, then, make changes and they wouldn't be considered modification under our new source review if the source wide emissions stayed within its plant-wide applicability limit.

Those are provisions of new source review. We are not in a position at this point to say that a source's allocation is, in fact, a plant-wide applicability limit. It's just not the way that the U.S. EPA has set up the New Source Review Program.

MS. ROSEN: B., how could the fact that the source has passed actual emissions, which were 25 tons of VOM per seasonal allotment period below the source's allocated amount of ATUs for a number of years impact its activities post-2000?

MR. ROMAINE: Well, quite simply, the source would have a surplus of ATUs and it could bank or trade those ATUs.

MS. ROSEN: Okay. Would the source have a risk of triggering new source review applicability if it is now using the 25 tons, which they may have

been selling under the program?

MR. ROMAINE: You would have to go through the specific evaluation under the New Source Review Program to see whether, in fact, there has been a modification of the source.

Going back to what I said previously, if the source had a permitted operation that allowed it to use certain raw materials or increase hours of operation or increase production rate, that has not been restricted by a permit condition, the fact that it has temporarily not been taking advantage of that and had surplus ATUs and sold them off would not allow them to come back in the future and return to operation and resume those ATU's itself.

MS. ROSEN: Okay. So is it correct that in theory, what you have is -- and we may have touched on this yesterday -- is that you're going to have a new source review sort of baseline and an ERMS baseline and they are separate and apart, the decisions you are going to have to make about emissions increases --

MR. ROMAINE: That's correct.

MS. ROSEN: -- and reductions? Thank you.

Question 4, if the source were to

fulfill its rate of further progress reduction requirements under ERMS, meaning it's met its 12 percent reductions, would any additional reductions made at the source, and with the assumption that such decrease occurred within the five-year period for the associated increase, be creditable for purposes of netting under 35 Illinois Administrative Code 203.208?

MR. ROMAINE: Generally, yes, for purposes of netting. Of course, one would have to adjust for the seasonal emissions from the trading program and annual emissions for purposes of new source review.

In addition, the main difference between the New Source Review Program and what is credible in the trading program is there could be provisions under new source review which would further restrict whether a particular emission decrease would be considered credible for purposes of netting.

MS. ROSEN: How about the same situation for purposes of offsetting under 35 Illinois Administrative Code 203.208?

MR. ROMAINE: They would be credible for purposes of offsets.

MS. ROSEN: B., if the answer to the above

question is yes, and if those additional reductions were made due to imposition of the post-1996 federal requirement, such as MACT, would the reductions be creditable for purposes of netting under new source review provisions?

MR. ROMAINE: You have come up with a circumstance where new source review rules further restrict the credit from a particular decrease for purposes of netting.

A decrease in hazardous air pollutant emissions as a consequence of a MACT rule would not be considered surplus for purposes of netting under new source review. The source could only get credit for incidental reductions for non-hazardous air pollutant emissions that accompanied a MACT rule. That would be the portion that would be credible.

MS. ROSEN: Okay. How about for purposes of ERMS?

MR. ROMAINE: Under the ERMS, that decrease would be fully recognized and would reduce the source's need for ATU.

MS. ROSEN: Okay. How about for when --

THE HEARING OFFICER: When you say that decrease, are you referring to the decrease in the

MACT or the incidental decrease that goes along with MACT?

MR. ROMAINE: I was referring to the

total decrease; the MACT reduction and the incidental reduction.

THE HEARING OFFICER: Thank you.

MR. ROMAINE: Assuming that CAAPP is an organic pollutant.

MS. ROSEN: For purposes of offsetting under 35 Illinois Administrative Code, Section 203.302?

MR. ROMAINE: Under our proposal, the decrease would be accepted for purposes of offsets.

MS. ROSEN: I'm going to go on to Question 5. There may be some aspects of it that were answered in your previous answer.

If a facility's ATU allocation after the year 2000 equates to 100 tons of VOM for the seasonal allocation period, in the year 2002, the source complies with the MACT standard, which requires the source to reduce HAPs, hazardous air pollutants, on a portion of its facility. By reducing the HAPs, the source has incidental VOMs emission reductions of 30 tons during the seasonal allotment period. The source has achieved its 12 percent required

reductions for purposes of ERMS prior to 1999 through reductions of other units within the facility. Would the source have the option of keeping those ATUs achieved via the MACT reduction as credits for selling those ATUs?

MR. ROMAINE: Yes. As described, it would

have surplus ATUs to bank or sell.

MS. ROSEN: Okay. And Question B., assuming that the response to Paragraph A is yes, the source decides to sell the credits for a period of five years from 2003 through 2008. In 2009, the source installs a new process unit at the facility which annually will emit 50 tons of VOM. During the ozone season, it will emit an additional 25 tons of VOM. Modification is major under new source review. However, the facility has sufficient ATUs to allocate to cover the increase.

Subparagraph 1, would the facility be able to perform netting under new source review?

MR. ROMAINE: Not really. Although a source is always able to pursue netting, in the case that's been described, the emission decrease would no longer be contemporaneous. The reduction is describe as having occurred in the year 2002. The increase for

which netting is being considered occurs in 2009, 2003, 2004, 2005, 2006, 2007, 2008. That's six years intervening time. Therefore, the emission decrease would no longer be contemporaneous for purposes of netting.

MS. ROSEN: We will strike Subparagraph 2.

Subparagraph 3, would the facility have to meet a 1.3 to 1 offset for the new emission unit under new source review?

MR. ROMAINE: Yes, it would. In this case, in 2009, we would expect it would be achieved through the trading program. I'm assuming there isn't any other emission reductions, no other netting or other arrangement going on that would otherwise excuse it.

MS. ROSEN: And under ERMS?

MR. ROMAINE: Well, because it would be a major modification -- assuming it's a major modification, the way that it would satisfy its obligation and have offsets would provide 1.3 ATUs for each unit of emissions from the new unit or the new emissions.

MS. ROSEN: Four, how will the source demonstrate compliance -- just a moment please.

How will the source demonstrate

compliance with new source review offset requirements?

MR. ROMAINE: It would have to have sufficient ATUs to meet the offset ratio. Thus, 13-ATU would have to be held for each ton emitted by the new unit rather than ten ATU tons generally required.

MS. ROSEN: C., assume that the source installs MACT and achieves the 30 tons of VOM reduction for 2003. Prior to the seasonal ozone period of 2003, the source installs the same new process unit. One, would this facility be able to perform netting under new source review?

MR. ROMAINE: Yes, it would. In this case, you would compress time period so that you are now having contemporaneous increases and decreases.

MS. ROSEN: Two, would the BACT -- would BACT and LAER have to be achieved for the new emissions unit under new source review?

MR. ROMAINE: Not if they successfully net out of new source review. So if these are all the increases and decreases we are talking about, then, it would net out and it would not have to have BACT or LAER. I just want to precaution, because it is a severe ozone nonattainment area, we have

to make sure there aren't any other contemporaneous increases and decreases. That's just a precautionary note.

MS. ROSEN: Three, would the facility have to meet 1.3 to one offset with the new emission unit of the new source review?

MR. ROMAINE: No. If it successfully nets out, it's not subject to the offset requirement.

MS. ROSEN: Or under ERMS?

MR. ROMAINE: If it were ERMS, it would simply have to hold enough ATUs. Under the description provided, it would seem that the prior reduction would free up some ATUs to accommodate this new emission unit.

MS. ROSEN: Question 6, would a source

still have to obtain a construction permit for a modification which would result in emission increases which would be covered by the source's ATUs allocation under ERMS?

MR. ROMAINE: Yes, it would. The trading program doesn't change the source's obligation to contain construction permits before construction of new or modified units.

MS. ROSEN: Our Questions 7, 8 and its

subparts, we would like to -- some have been asked and answered. We may be addressing them possibly within our own testimony.

THE HEARING OFFICER: You are going to withdraw those?

MS. ROSEN: Excuse me?

THE HEARING OFFICER: Are you going to withdraw those?

MS. ROSEN: Yes. We will withdraw them.

Turning to Question 9 on Page 6, on Page 6 of Mr. Romaine's testimony, when discussing sources seeking exemption by reducing their baseline emissions by 18 percent, he states that those sources would not be subject to the various market elements of ERMS. To which ERMS elements would those sources be subject?

MR. ROMAINE: Well, exempt sources would certainly be subject to seasonal regarding for

their VOM emissions. In addition, exempt sources, pursuant to the ATU exemption, you will have to file ERMS applications to establish the source's baseline emissions so we can determine what emission level represents an 18 percent reduction.

What exempt sources wouldn't have to

do would be to hold ATUs for seasonal emissions. It wouldn't have to have transaction accounts or account officers and they are also not subject to the automatic excursion provisions of the trading program.

MS. ROSEN: Question 10, if a source has requested in its CAAPP application that an activity be deemed insignificant pursuant to 35 Illinois Administrative Code 201.211, yet the agency has not made a determination under the CAAPP permitting process, how would this source address these activities in its ERMS application?

MR. SUTTON: If the source has claimed these activities as insignificant in their Title 5 permit, they should assume their insignificant activities until they are directed otherwise by the agency. So they are to proceed as if they were insignificant activities in the ERMS application.

MS. ROSEN: Question 11, on Page 23 of Mr. Romaine's testimony, he discusses how the agency will handle new or modified emission units

for which a construction permit was issued prior to January 1, 1998, but for which three years of operational data is not available.

He further states that it is the agency's intent that an emission unit that has not operated for three complete seasons will result in the future adjustment to the allocations of ATUs when representative emissions data from three complete seasons is available.

In this regard, can you describe procedurally how the baseline adjustment will be made? For example, will allotments for the new unit be reduced by 12 percent?

MR. ROMAINE: Well, I'm going to give you a big overview. The potential for the pending project adjustment will be addressed as part of the initial baseline emission determination allocation process.

The construction permit for the pending project will address the pending project, its permanent VOM emissions, and associated quantification material.

This material could be relied upon the initial baseline determination allocation process so that the source's Title 5 permit describes the maximum adjustment that is available and the method to be used to determine actual VOM emissions for the project.

This material would certainly specify whether this unit would be considered an excluded unit, in which case it would not have to have 12 percent reduction or whether it's an ordinary unit, in which case it would have to have 12 percent reduction once the emission data was favorable.

Now, what would occur is after the pending project is operational for three seasons, the adjustment for the allocation would be a routine administrative matter. Everything proceeds as laid out in Title 5 permits.

In that case, when we get emission data consistent with the methods set forth in the Title 5 permit, additional ATU, with the adjustment or 12 percent reduction, if necessary, would be issued or subsequent seasons based on that data.

However, if something unforeseen occurred so that the source wants to provide relevant provisions of the Title 5 permit, the source would have the option of requesting revised Title 5 permit to address new development. In that case the adjustment would be handled as part of crossing that request for a revised permit.

MS. ROSEN: Thank you.

MS. HODGE: I'm Catherine Hodge from Hodge & Dwyer representing ERG as well.

Just as a follow-up on that point, Mr. Romaine, let's assume that the new unit was not an exempt unit. That might be an unusual situation, but let's assume it's not exempt and we are waiting for three full seasons of data, when would the source have to make 12 percent reductions?

When would the reduction occur?

MR. ROMAINE: Well, that's an interesting question. The way we have set it up is that for those first three complete seasons, the source would not be required to hold ATU for that emission unit. So conceivably, for 100 percent emissions. You pointed out an oversight.

MS. HODGE: Okay.

MS. ROSEN: Question 12, if a source has 100 emission units that are treated as one unit for purposes of permitting under the existing permitting program, may those units be treated as one unit for the purposes of establishing a baseline under ERMS?

MR. ROMAINE: This would certainly be our preference for consistency with Title 5 application.

If at all possible, we would strive to maintain that grouping.

There could be circumstances, however, where the historical grouping of equipment might have to be broken down further for purposes of setting the baseline under the trading program.

For example, a grouping of equipment would have to be subdivided when determining a source's baseline emissions if some units show voluntary over-compliance and other units that do not or if some units are subject to MACT requirements would be excluded and others are not.

So that historical group might not fit some of the new demands of the trading program, but if we can keep it, it certainly is our preference.

MS. ROSEN: Question 13, on Pages 12 and 13 of Mr. Romaine's testimony, when discussing the emissions determination methods to be used, he states the ERMS does not mandate that a particular determination method will be used for a particular type of unit.

He also states that quantifying emissions based on published emission factors may be acceptable and that, quote, for a particular

unit, a more rigorous measurement method such as emissions testing will not be warranted for purposes of the ERMS due to the small size of the unit or

other considerations.

Question A is what are some of the other considerations that may be factored into this case-by-case determination?

MR. ROMAINE: It is a case-by-case determination. Some of the other considerations that might come up certainly would be the determination that is proposed by the source and that method's ability to adequately quantify VOM emissions from a particular unit.

You might also consider the expense or difficulty of testing as a technical matter. The difficulty in testing under a representative set of conditions or maybe the benefit of a consistency and determination method over a large number of similar emission units.

MS. ROSEN: B, would the statement that, quote, emissions testing will not be warranted for purposes of ERMS apply to emission units that quantify emissions based on methods other than published emission factors?

MR. ROMAINE: Yes, it would.

MS. ROSEN: Question 14, does the agency envision requiring testing above that performed under existing applicable requirements?

MR. ROMAINE: Yes. This is a possibility. For example, testing could be required under the

trading program if the source wants to rely on a level of control that is higher than verified under existing requirements.

Testing could also be needed for compliance where applicable requirements can be verified without any testing, but the method chosen for quantification of VOM emissions relies on tests.

MS. ROSEN: On Page 15 of Mr. Romaine's testimony, he states that existing operating records and compliance practices may need to be further enhanced to provide adequate quantification of VOM emissions specifically for purposes of ERMS.

A., what do you mean further enhancement?

MR. ROMAINE: Well, one aspect of Title 5 permitting in itself is enhancement of record keeping and the other practice is followed by a source to

show compliance with applicable requirements.

In this respect, Title 5 permits will be much more specific in delineating practices that a source must follow. Rather than assuming that adequate practices will be filed under a Title 5 permit, a Title 5 permit will specify that records of certain operating parameters be kept at least given frequency to show that emission unit is operating within the normal range.

So you start from the site, it will be enhancement under Title 5. It will happen under trading program that there could, in fact, be further enhancement of those particular procedures beyond the Title 5 level as necessary to assure that there was adequate quantification of VOM emissions for purposes of the program.

In general, I guess the other thing to point out is that this whole process takes place based on the compliance plan that the applicant or the source includes in their Title 5 application.

That's where the source is supposed to apply the practices that they have been using and plan to use in the future to show compliance.

MS. ROSEN: Moving to C., is it true that

if there is a disagreement over the future enhancement -- further enhancement of monitoring, sampling, testing or record keeping requirements, this issue could be appealed to the board?

MR. ROMAINE: Yes, it certainly could.

MS. ROSEN: I just realized that our questions on our other document go to a section which we have kind of, for the most part, we are passing up as we proceed. Would you prefer, and the agency, too, to continue asking from this set of questions and move to the other set of questions or should I proceed in order of the rule?

MS. McFAWN: For purposes of the record?
THE HEARING OFFICER: Bonnie, do you have a preference?
MS. SAWYER: Well, I'm not sure how many questions there are. You said we already passed the section?
THE HEARING OFFICER: Yes.
MS. ROSEN: We just past it.
THE HEARING OFFICER: The other questions they filed were on January whatever. They deal with Seth Garcia Section 205.320. In fact, I think they all are on 320.

MS. ROSEN: For the most part.
THE HEARING OFFICER: We are are now on 335.
MS. SAWYER: So have you concluded 335 now?
MS. ROSEN: Yes. We have just concluded that.
MS. McFAWN: We're getting ready to go on to Subpart D, which she is pointing out.
MS. SAWYER: It might make sense just to go through Subpart C at this point.
THE HEARING OFFICER: Okay. Let's go back to the 320 section.
MS. ROSEN: All right. Then, these questions are coming from the document entitled, "Supplemental Prefiled Questions of the Illinois Environmental Regulatory Group," which is dated January 27.

Question No. 1., what is meant by the phrase limitations placed in the sources permits based on such applicable requirements as used in Sections 205.320(d) and (e)?

MR. ROMAINE: This phrase refers to conditions in a source's permits as a result of applicable emissions standards or rules. The most common example of such requirements would be conditions placed in construction permits to assure that

proposed projects are not major pursuant to the New Source Review Program.

MS. ROSEN: Does the phrase include limitations which do not relate to either an applicable requirement or the avoidance of an applicable requirement?

MR. ROMAINE: No. This phrase is intended to relate to conditions for which there is a regulatory basis.

MS. ROSEN: C, which limitations are used for the purpose of calculating a source's baseline emissions if the source's operating permit limitations are different than the limitations in the source's construction permit.

MR. ROMAINE: There isn't a simple answer to this question.

One of the things that the Title 5 permit process has to do is to consolidate the

past requirements applying to a particular source and sort out what are the appropriate requirements and then place them into the Title 5 permit. So if the Title 5 permit would determine which is the binding limit.

Hopefully, it would be in the operating

permit because that is the last one we worked on assuming we changed because there is a reason. So the operating permit is the one that's appropriate, but it would have to be reviewed on a case-by-case basis and whatever was decided would be reflected in the source's Title 5 permit.

MS. ROSEN: Could I have just one moment, please?

I'll try to phrase this. How will the -- I think your testimony -- the testimony has been that the CAAPP permitting process is going to resolve the differences between these limitations.

For purposes of baseline determination, you are looking at years, you know, prior years, '93, '94, whatever years you might choose. If the construction permits at that time and your operating permits at that time have different limitations, I'm trying to describe a situation where those limitations might be different than the limitations are -- and the activities at your source which are going to be governed by your CAAPP permit, how are

you -- there might be discrepancy between the operating limitations at that time and those that ultimately go into your CAAPP permit.

How is that going to occur? When you look at your baseline years, how are they reconciled?

MR. ROMAINE: I think that cleanup could still be part -- that is part of the Title 5 review process. It's believed necessary to have a determination. What limitations were appropriate or, in fact, perhaps to say that neither limitations were appropriate. In any event, whatever limitation is revised for the trading program, it would be part of the application. Part of the ERMS application would be subject to review. Presumably, if the baseline were based on that data as reflected in the Title 5 application, that would be determination for how a particular source's baseline emissions were determined.

MS. HODGE: I'll ask a follow-up on that.

So will a source be able to have the agency revise a condition or a limitation of a previously issued construction permit?

Can that be revised in a CAAPP permit?

MR. ROMAINE: That is our hope. We have not exactly figured out if there are any other additional procedures that have to be followed, but whatever is decided could be reflected in the

Title 5 permit.

MS. ROSEN: That's all we have at this time on that particular issue, but could we possibly revisit it, not today, but. . .

THE HEARING OFFICER: Yes.

MS. ROSEN: Thank you. Question 2, how will baseline emissions be calculated for an emission unit where the only applicable requirement limiting VOM emissions is the eight-pound per hour rule?

MR. ROMAINE: By the eight-pound per hour rule, I assume you are referring to 135 Illinois Administrative Code 218.301. This is a rule that limits the use of organic material.

Actually, this is a pretty good question because this is one of our more misunderstood rules.

Part of the reason is it dates back to the original board rules back in 1973 and it predates the concept to volatile organic material and, in fact, only goes after photochemical reactive organic material, which is another very specialized definition.

In any event, what the rule requires is that emissions of photochemical reactive organic

material be controlled by 85 percent if the emissions would otherwise be more than 8 pounds per hour.

If you look at it in those terms, you see that really the eight-pound per hour is not an emission limit. It's an applicability level to determine whether add-on control is required.

So we would not look at that eight-pound per hour number as an emission standard. We would look at whether that particular emission unit had to be controlled or not.

MS. ROSEN: How are emissions reductions, which result from product recovery, treated for purposes of ERMS? I'm going to kind of tie it to the next question.

For example, will there be any distinction made between emission reductions which result from the imposition of product recovery as compared to the emission reductions which result from the implementation of other process modifications or the imposition of control technologies?

MR. ROMAINE: Well, the purpose of the trading program is to recognize VOM emission reductions. It doesn't really matter from that perspective whether

the emission reductions come from adding control onto the back of the process or by putting in enhanced process improvements into the process.

MS. ROSEN: So you are saying that there wouldn't be any distinction for practical purposes?

MR. ROMAINE: Right.

MS. ROSEN: Okay. Our Question No. 4 relates to an issue that was delved into yesterday so I would just like to kind of modify it to get to our more direct point, if I may.

I'll read the question and then just kind of phrase a follow-up. Number 4, what information will be necessary for a source to demonstrate non-representative conditions which would justify the use of a substitute season?

For example, if I am asserting that I had a strike during one of the default years and I would like to use a non-representative year, do I have to provide detailed emission data for the default year for the '93/'94 year or do I just have to present information which supports that I had a strike?

MR. ROMAINE: Let me check the rules. That's something I'm not sure of.

What is required is specified in 205.310(b)(1)(B). What is stated here is that a source must provide justification of the years more

representative including data on production types and levels from the proposed substitute years and for historical production data as needed to justify the proposed substitute year is represented.

MS. ROSEN: Okay. It sounds like the rule is stating that you are providing that data for the substitute year, but not for the regular year, but I'm going to look at the section right now.

MS. McFAWN: I have a question while you do that.

Chris, does that mean -- what does that mean when you say the words historical data as necessary?

MR. ROMAINE: I have to consult with my attorney.

MS. McFAWN: That is very prudent of you, Mr. Romaine.

MR. ROMAINE: We concluded you have to provide emissions data for '94, '95, '96, and the like year for that substitute season.

MS. ROSEN: Where is that required?

MR. ROMAINE: We believe that's a combination of the requirement under Section 205.310 requiring VOM emission data and production time from baseline emission years as specified in Section 205.320(a)(1), which refers to baseline emission data for '94, '95 and '96.

MS. ROSEN: The last section you referenced, what was the cite, 205.320(a)?

MR. ROMAINE: 205.320(a)(1).

MS. ROSEN: Well, if you are not calculating your baseline period from the seasonal allotment periods of '94, '95 and '96, why would you be looking at that information for those years?

MR. ROMAINE: Well, there are two answers for that. The first answer is because that's what the rule reads.

MS. ROSEN: Okay.

MR. ROMAINE: The second answer is I think we have to think about the fact that we would need the emission data if we are not relying on that season.

MS. ROSEN: All right. And as a follow-up, isn't it true that the agency is going to have this data as part of your seasonal -- annual emissions

report and won't that information be sufficient rather than require the remittal of it when your justification is something like a strike that the emissions aren't really relevant to the issue of the strike?

MR. ROMAINE: Well, I think one general answer to that question is just referring to 205.210(b), which does allow a source to rely on information that has already been submitted to the agency if it is

adequately referenced.

So if there is sufficient data in somebody's annual emission reports, with a season that's considered non-representative and it clearly shows that the strike affected it, that may certainly be sufficient to satisfy the obligation to provide emission data for that non-representative season.

MS. ROSEN: Thank you. If I could follow-up just briefly on that, assuming that I had a production slump for two years, two of the '94, '95 and '96 years, and I wanted to argue that those years aren't representative and I wanted to look at other years, what sort of information would I have to submit to make that showing that those are non-representative years?

I believe your testimony yesterday was you may have touched on the fact that you won't be allowed to make that sort of showing if it appears that there was a consistent production level during those years. I apologize if I'm mischaracterizing it.

MR. ROMAINE: That wasn't what I was trying to communicate.

MS. ROSEN: Okay.

MR. ROMAINE: In fact, the circumstances you're describing is a production slump. A production slump, as I understand it, is a temporary

condition so the objective and the application would be to show, in fact, it was a slump.

If it wasn't a consequence of a permanent change in the particular business or markets, but it was simply a temporary condition, I guess this is the way I think of slumps.

Activity is at a particular level. It goes down for a while and goes back up again. The source can make that shown as what has happened, that would be a sufficient demonstration to go to another substitute season.

MS. ROSEN: And you might be able to make a

showing. It might be reasonable to anticipate a showing that you had a production slump that took course in two of those years and you might have to justify -- it might be possible to justify that a production slump that occurred in more than one year would allow -- would be non-representative for purposes of getting a different --

MR. ROMAINE: Speaking hypothetically, that certainly could be the case.

MS. ROSEN: Okay.

MR. ROMAINE: Somebody could come in and show that none of the seasons of '94, '95 or '96 are anywhere near as representative.

MS. ROSEN: Thank you.

MS. SAWYER: One moment. Did we respond to

Board Member McFawn's question?

MS. McFAWN: Yes, you did.

MS. SAWYER: Okay.

MS. ROSEN: Question 5, could you please clarify what is meant by the following, and I'm quoting from the testimony of Christopher Romaine, Example 3-B, "The source would first have to hold ATUs for this emission unit in the 2000 season after the supplement would be available."

What did you mean by that phrase?

MR. ROMAINE: This was an example of a pending project. The way we set up this proposal, the sources are not required to hold ATUs until a pending project has been optional for three complete seasons.

I think in terms of the particular chronology given in my example, the first season after those three complete seasons was 2000. So that would be at the point where they would then have to address the emissions of that pending project.

Presumably, the source would have provided the emission data to us at the end of the three complete seasons. We would have done through the outline as set forth in the Title 5 permit to do the adjustment so that that supplement would be available to them by the time the fourth season

came along in May of the following year.

MS. ROSEN: We will withdraw Question 6. It has been asked and answered or you clarified it in your information yesterday, yesterday.

Thank you. That concludes the questions on the January 27th document. We will return to the

other one.

I believe that we were at the bottom of Page 8, starting with the Subpart D questions. We would like to withdraw Question 16, A., but would like to ask Question B. So I'll read the preparatory language.

On Page 25 of Mr. Romaine's testimony, he states that source will have to provide sufficient data in the ERMS application to support these exclusions. The Illinois EPA have to reflect these exclusions in its allocation of ATUs to the sources as reported in the CAAPP permit; and B., will the excluded units be subject to reporting on a seasonal emissions report?

MR. ROMAINE: Yes, they will.

MS. ROSEN: And C., Could the agency provide some examples of fuel combustion emission units that would be exempt under Section 205.405?

MR. ROMAINE: Yes. Some examples of fuel combustion emission units are boilers, water heaters, things that are found in most sources, and things

like process heaters as found in refineries and chemical plants.

MS. ROSEN: Question 17, assume the source

has five emission units and the source achieves 12 percent required reduction from its baseline as a result of emission reductions at two of the units further.

Further assume that in the year 2001, three of the other units achieve MACT and automatically excluded emission units under the ERMS.

Question A., will the source continue to receive allotments based on the pre-MACT emissions from those three units?

MR. ROMAINE: Well, to clarify, in this hypothetical example, it's assumed that three emission units achieved MACT in 2001. This is really relevant to the answer as the baseline emissions for this source and the source is resulting allotment of ATU have already been established.

Therefore, the fact that something happens after the baseline has been set in 2001 wouldn't affect the allotments to the source.

MS. ROSEN: Okay. B., will the three MACT units be limited to their actual emissions following the application of MACT?

MR. ROMAINE: Well, they certainly have to

comply with the MACT requirements, but beyond that, the trading program would not put any restraints on their actual emissions beyond MACT.

The source would continue to operate under the trading program with its established allotment of ATUs and go about its business holding ATUs for those units.

MS. ROSEN: Are emission units that achieve MACT prior to 1990 excluded units under Section 205.405(a)(1)?

MR. ROMAINE: Yes, they would be. I assume in this case they are complying or achieving compliance under adopted MACT standard. They have just been a leader in their field and doing it for a long time. If the unit is complying with a MACT standard, it is an excluded unit.

MS. ROSEN: Okay. We would like to withdraw Questions 19 A. and B.

Question 20, if a source has a printing line that achieves 98 percent control, yet there is new control technology that has been developed that would allow a unit to achieve 99 percent control efficiency, would the existence of the new technology preclude the source from seeking exclusion for the

unit under Section 205.405?

MR. ROMAINE: No, it would not.

MS. ROSEN: Twenty-one, on Page 31 of Mr. Romaine's testimony, he states that the BAT exclusion cannot be used to address short-term conditions, for example, the remaining few years of operation of a now obsolete unit. Units experiencing temporary circumstances of limited duration are ideally addressed by the market.

What do you mean by the use of the term short-term and temporary in your statement?

MR. ROMAINE: Well, I really didn't have any particular period of time in mind. I was thinking more in terms of the circumstance where the source doesn't believe it's appropriate to do something under the best conditional VOM control measures on a particular unit because of the time factors.

So I'm really putting it on a source's side. If they come to us and argue you can't control because of time, then, I would say, well, it's temporary circumstance that they are concerned with.

MS. ROSEN: Okay. Question 22, assume Source A purchases 200 ATUs from Source B and thereafter,

following entry of the ATUs into the database, the agency discovers that Source B, the seller, did not make the appropriate emission reductions, which would have made ATUs available for sale. Under this scenario, who would be subject to the emissions excursion compensation provision under the ERMS rule?

MR. KOLAZ: Source B, under the scenario you just described, would not hold enough ATUs at the end of the reconciliation period.

Therefore, they are the ones who would receive the excursion compensation report. As mentioned in an answer that was given yesterday regarding how the agency determines whether someone has access ATUs, I want to emphasize that this also points to the fact that nothing in the rule prohibits a source from selling ATUs beyond what it would need to reconcile its emissions.

So as the agency issues the emission excursion compensation notices, they will be simply looking at those that do not hold enough ATUs regardless of whether they have enough ATUs during reconciliation period, but somehow chose to sell those off.

MS. ROSEN: Question 23, on Page 4 of Mr. Kolaz's testimony, he states that at the end of each reconciliation period, the agency will

retire the ATUs in each account used to reconcile the previous season's VOM emissions. The ATUs used for such purposes must be valid for the proceeding allotment period.

Would the agency provide examples of when ATUs used for such purpose would not be valid for the preceding allotment period?

MR. KOLAZ: Yes. My testimony and my answer really are based on two provisions of the rule. One, is 205.400(b), which states that the ATUs are valid for the season issued and if not, used for the season following issuance.

To give an example of that situation, it's -- as the agency retires ATUs, it will look to see if the ATUs fit that particular description. So if someone bought ATUs that are valid for following season, keeping in mind that in my testimony I mentioned that we will be issuing ATUs for multiple seasons, it's possible that the ATUs that a source wishes to retire is actually not valid until the following season.

The other example really deals with Rule 205.530(a)(5), which describes the situation where ATUs acquired in a transaction after December 31st cannot be used to reconcile emissions from the preceding season and that's even in a situation where the ATUs were issued for the preceding season.

So as we look at a transaction account, if we found that you had purchased ATUs valid for the preceding season, but the transaction occurred after December 31st, then, you would not be allowed to use those to reconcile the pre-season's emissions.

MS. ROSEN: Thank you. We would like to strike Question 24. I believe that the remainder of our questions are best directed to Mr. Kanerva.

MS. SAWYER: Okay.

THE HEARING OFFICER: I have a couple of questions. One of them is actually best directed towards Chris.

During your discussion about the slumps and the question about the slump periods of production, is it -- does the ERMS rules take into effect a cyclical production slump that may occur in a facility?

MR. ROMAINE: No special provision has been made to deal with a cyclical operating schedule. The source would have the ability to demonstrate that they would have non-representative conditions of '94, '95 and '96, and then come up with a selection of seasons that they believe are representative.

THE HEARING OFFICER: Okay. I have another question that maybe Mr. Sutton could help me with.

In revising the construction permit, when we were talking about the revision, being shown in the CAAPP permit, couldn't a source just request a modification of the construction permit?

MR. SUTTON: Correct. As a matter of fact, our 39.5 directs that a construction permit application for a CAAPP source would be deemed an automatic amendment of the CAAPP application. So there is a clear and direct way of seeking another construction permit.

What Chris was alluding to is we would like to see if there is a possibility of expanding the use of the CAAPP application as U.S. EPA would say to hygienically clean out some of the non-representative portions of that construction

permit that previously existed, but you are correct in your assumption.

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, please.

MS. SAWYER: I would like to have the written testimony of Gary Beckstead moved into evidence.

(Document marked as Hearing Exhibit No. 37

for identification, 2/4/97.)

THE HEARING OFFICER: Exhibit 37 is dated January 2, 1997.

Are there any objections to having Mr. Beckstead's testimony entered into the record?

Seeing none, I will enter that into the record as Exhibit No. 37 as Gary Beckstead's testimony dated January 2, 1997.

Do you want to call your next witness, Bonnie?

MS. SAWYER: The agency would recall Joe Goffman.

THE HEARING OFFICER: Just as a reminder, I wanted to remind you that you under still under oath from your previous testimony.

MS. McFAWN: Welcome, Mr. Goffman.

WHEREUPON:

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

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

MR. GOFFMAN: I can't decide where to start my testimony. Thank you very much for letting me testify again on behalf of the Environmental Defense Fund.

It is a testament to the board's fortitude and patience to let me put my slides up again, but what I would like to talk about today

is give you a very brief overview of the basic design and performance of the acid rain emissions trading program because when the design team, over time, worked on specific issues involving the ERMS program, the design and the heroic performance of the acid rain program gain a point of reference.

While the design team did not consciously start out attempting to replicate the acid rain program, a number of design decisions

that the U.S. Congress had made and the EPA had made in that program ended up having relevance to address concerns of the regulating community and the public that were expressed to the agency during the course of the design team's work and then communicated back to the design team.

Just to review very quickly, the Acid rain program was codified under Title 4 of the 1990 amendments to the Clean Air Act. Its likely objective here was to reduce a pollutant -- in this case, sulfur dioxide -- by a specified amount.

The focus of implementation was on utility power plants. The pollutant regulated chiefly under Title 4 was sulfur dioxide or SO2 as a precursor of acid deposition.

The program was implemented through the issuance of the fixed number of SO2 emissions

allowances, which are exactly comparable to the ATUs contemplated by the proposed rule here.

The permitting aspect of the Title 4 was not so much from the operation side. It was simply on the output side.

Title 4 says in as many words that for

purposes of regulating SO2 under Title 4, all a permit has to do is specify the conditions and requirements for monitoring emissions by power plants and then specify to the utility holding the permit it will hold as many emissions allowances as SO2 emissions its monitors measure coming out of its stacks.

The number of emissions allowances in the case of the SO2 program is 8.95 million allocated every year by the U.S. EPA.

This is basically a pictorial representation of an example of why emissions trading makes sense economically while still producing at least the same amount of emissions reductions as would occur if the two sources in this example were required to make all the reductions for which they were responsible on-site as opposed to engaging in trading.

As you can see in this example, the unit which can make a reduction at less cost has an incentive and is given money for making more

reductions than required by the operator of the unit that has to spend more to make the same reductions. In the end, the -- this source saves

about $100,000 a year under this example.

This source receives revenue for making extra emissions reductions and the environment sees the same amount of emissions reductions as contemplated by the law and as it would occur under the -- under a non-trading approach.

In fact, as I think we talked about last time, a trading system which gives monetary value not to pollution, but to making reductions in pollution actually creates incentives for sources at least in the early years of the program to speed up their emissions reductions and make more emissions reductions than are required.

The evidence for that theory's application to practice is in the results of the acid rain program. 1995 was the first year of implementation and in the last two years, '95 and '96, the affected sources under the SO2 program have actually made more reductions than Congress requires them to make because in making those reductions, they created a financially rewarding or potentially rewarding economic asset at the same time and they have been able to accomplish this at a significantly lower cost than anyone

projected.

MS. McFAWN: Before you go on, could you go back to your last overhead?

MR. GOFFMAN: Sure.

MS. McFAWN: Could you walk us through those two examples?

MR. GOFFMAN: Yes, I'm sorry.

MS. McFAWN: I don't believe you did last time at our last hearing.

MR. GOFFMAN: No, I didn't. I would be happy to.

This unit is emitting 10,000 tons. It's potential trading partner is emitting 8,000 tons. The 10,000-ton unit has to make 5,000 tons worth of reductions.

It can do so at the cost of $150 a ton. It makes those reductions. I'm sorry to say I might be confused by my own example. I'm sorry about that.

MS. McFAWN: Do you want to start over?

MR. GOFFMAN: I probably should start over.

MS. McFAWN: Okay.

MR. GOFFMAN: I'm terribly sorry. I have to admit I did this slide about three years ago or even

longer. I have to say I forget whether this 150-ton number represents -- that's right. I think as I was beginning to say, it represents the marginal cost of reduction, the cost at the time.

This unit can, therefore, make extra reductions at the lower cost and can sell those reductions to the higher cost unit. I can tell by the look on your face that I'm probably getting this backwards.

MS. McFAWN: Well, I don't know that you are getting this backwards. Let me just ask you a couple questions.

MR. GOFFMAN: Go ahead. Ask me some questions.

MS. McFAWN: So you're saying that the 10,000-ton unit is going to cut in half its emissions?

MR. GOFFMAN: Yes. They are both obligated by law to cut their emissions in half. So nominally, in the SO2 program, they are issued a quantity of allowances equal to one-half of their current emissions. This unit was issued 5,000 allowances. This unit was issued 4,000 allowances.

MS. McFAWN: This example assumes that it

costs $150 per ton for the 10,000?

MR. GOFFMAN: Right, exactly, exactly. That's a marginal cost. I think in this example, what we were trying to illustrate when we put it together is that dirtier units tend to enjoy economies of scale. The more reduction they try to make, the lower the marginal cost and the more likely they are to make additional reductions beyond what they are required to do and to sell those reductions at a lower cost than a higher marginal cost reducer can achieve on the site.

MS. McFAWN: So the 4,000-ton number represents that they over-controlled by 1,000?

MR. GOFFMAN: Right. They over-controlled by -- let's say they over-controlled by 1,000 tons. Thank you for doing a better job of reading my slide than I am. I think you've got it. Thank you for the help.

They over-control by 1,000 tons. They sell the over-control for $300 a ton to the 8,000 tons. Essentially, they have incurred $150,000 cost to make those additional reductions and they have reaped $150,000 a year profit for selling those reductions, which they can use for any number of

purposes, but obviously to subsidize their initial investment in over-control.

This unit, which initially awarded

4,000 allowances, can emit 5,000 tons because in addition to the 4,000 allowances, it has acquired 1,000 additional allowances from the first unit. That reduces for it a net savings including its expenditure of $100,000 a year.

So basically, as I said before, the environment sees the same level of reductions at least. The regulated sources in the example spend less money on that for those reductions.

Overall, the dynamics of the system of trading create incentives that so far in the case of the acid rain program produced a significant environmental result in the form of extra reductions that Congress itself couldn't mandate and legislate.

Again, my apologies for relying on your help to walk me through my own slide.

MS. McFAWN: No need to apologize.

MR. GOFFMAN: In the late '80s and 1990, when EDF was initially advocating for this approach, we did an analysis of the relative economic impacts on a national basis for the command and control

approach that would produce ostensibly the same results, that is, a ten million time reduction a year of SO2 and a market approach.

Essentially, the -- this line represents the negative economic impact nationally.

MS. McFAWN: If I could interrupt you, could

we just note for the record that this overhead is called "Macroeconomic Impacts"?

MR. GOFFMAN: Right.

MS. McFAWN: Thank you.

MR. GOFFMAN: The air analysis showed a significant negative economic impact in terms of costs for a command and control approach and a much smaller impact in terms of cost to the economy from a market-based approach.

In the same analysis, I'm putting up a slide called "Cost Changes in Trading is Restricted." What our analysis showed is that for different regions or subregions of the country where sulfur dioxide emissions were high and sulfur reduction costs were expected to be high, the cost of complying with the program increased significantly if trading was restricted in some way or eliminated all together.

As I suggested, the EPA has estimated -- I get this from the testimony that the EPA submitted to Congress in 1994 -- the EPA has estimated that the savings of the acid rain program are on the order of at least 50 percent compared to what the same reductions or the price tag for the same reductions would be in the absence of emissions trading.

The reason for this is that through emissions trading and emissions banking, it's much

easier for utility power plants that are required to make these SO2 reductions to integrate their response to the requirements of the SO2 program with their response to the general economic demands that they face just in doing business.

In this slide entitled "Utility Investment Decisions," all I did was enumerate the menu of alternatives that utilities could choose to meet their SO2 requirements.

I think of the contrast if Congress or the EPA would have decided to achieve the same level of SO2 reductions by prescribing specific technology or fuel choices.

It would have been that much harder particularly if each and every unit had to choose

from among that unlimited menu for any one of these alternatives to be selected for any one of these potential innovations to be developed or to penetrate further into the marketplace and that much harder for utilities to integrate the demands of doing business with the demands of achieving SO2 reductions.

On this slide, which is entitled, "Overview of the Allowance System," I just wanted to lay out just sort of the basic mechanics of the allowance -- the SO2 allowance system, which I think you will recognize as being very similar to the basic mechanics of the ERMS system.

In this case, one allowance equals one-ton of SO2 emissions. In the case of the proposed rule, one ATU equals one unit of VOM.

A limited number of allowances in the acid rain program are allocated to the emission -- allocated to the sources of the units. Allowances in the SO2 program are fully tradeable and fully bankable.

They also, in addition to being the units of exchange, are the instruments of implementation or compliance because as I said, each utility source's permit specifies, as does Title 4

in statutory language, that compliance is holding the same number of SO2 allowances as the quantity of emissions measured in each source.

Again, on a slide entitled, "Key Components of the System," the EPA provides accountability or ensures compliance by setting up a tracking system which doubles as the bookkeeping account for trading as well as compliance.

That system -- a similar system is contemplated for the proposed rule. The U.S. EPA's role in achieving this accountability and ensuring compliance is essentially managing or making deductions from the allowance accounts ensuring that the monitoring or quantification of actual emissions on a high quality basis and that all the

units report the results of measurement or quantification to the agency and then allowances are deducted from each unit's accounts equal in number to the reported measured or quantified SO2 emissions.

One of the key elements of the SO2 allowance system is a concept of kind of built-in mechanical automaticity, if I can make up a word.

Under this system, under the Title 4

system, units that emit more SO2 than they have allowances to cover the SO2 are automatically subject to a monetary penalty and are automatically subject to a deduction from their next year's allowances.

In addition, they are subject to the full panoply or array of Clean Air Act remedies as well. This automaticity, particularly with respect to the automatic reduction of SO2 allowances, is very important because it ensures that in the year immediately following the SO2 emissions exceedance, the environment is compensated.

In addition, it ensures that sources are subject to an evermore stringent level of liability because their allowable emissions by the dent of the production of their next year's allowances is lessened in the next year.

Therefore, they are subject to much greater liability under the traditional Clean Air

Act and enforcement remedies.

I believe the proposed rule sets up a similar kind of mechanics wherein sources that have what are called emissions excursions are automatically liable to compensate the environment by achieving additional emissions reductions and

if they don't succeed, suffer an automatic deduction in the ATUs allocated to them.

The same compensating environmental affect and the same compliance incentive is created under the proposed rule as seems to be working under the SO2 program.

In the case of the SO2 program, the EPA -- and I have up here a slide entitled "Emission Monitoring" -- the EPA puts most of its effort into enforcing the source's requirement that they use either continuous emissions monitors in their stacks or apply a comparably reliable and accurate method of quantifying their emissions.

So the EPA's enforcement compliance resources are much more focused on the actual performance result and the proposed rule imposes a similar emphasis on quantification and measurement and authorizes the agency to ensure comparable performance on the quantification and measurement requirements of sources.

Under the SO2 program, there is a

mandatory auction not all of the allowances are handed out by the EPA. A little under three percent of them are held back and distributed through a

public auction held every year.

The primary purpose of this provision in the SO2 program was to provide the regulating community with the assurance that there would be some availability of allowances that they could acquire in the event that the market somehow didn't work or didn't supply a sufficient amount of tradeable or transactable allowances.

To address similar anxieties on the part of the regulating community here, the proposed rule establishes something called -- something known by the acronym ACMA. I keep forgetting what ACMA stands for.

I believe it stands for Alternative Compliance Market Account, which does not function as an auction, but rather it functions as a direct sale source from the state for sources that cannot find ATUs in the market, but are willing to pay a premium price to purchase ATUs in the state.

To the extent that those ATUs are funded, if you will, out of the affixed pot of ATUs, the total emissions CAAPP as in the case of the SO2 program is preserved, and the state stands as in effect the guarantor of the availability of

ATUs in the event that the market doesn't offer an adequate supply.

The EPA auction -- and I'm putting up a supply entitled "1994 Auction Results," is well subscribed to by sources. People have come in each year and purchased the full amount of allowances, but they have purchased them in extremely low prices relative to what the predicted cost of SO2 emissions reductions were.

There are a lot of different theories, and I emphasize the word theories -- for these low prices -- but one of them is that the auction in the SO2 system is somewhat superfluous.

Sources are, in fact, finding success in seeking to purchase allowances in the trading market and certainly they are finding success in creating banks of allowances which they can use or have available to use in later years.

THE HEARING OFFICER: Before you go on, could you explain some of the samples what they stand for?

MR. GOFFMAN: Sure. Basically, S stands for sold, capital U, small N, stands or unsold. These refer to -- as an adjunct to the EPA auction. Private holders of SO2 allowances can use the same

mechanisms and put their allowances up for auction and specify minimum bids that they would take.

So in this column, there are allowances that are vintaged 1995. That is to say they are usable in 1995 and they are available on a spot basis for, if you will, immediate use or use within the next year.

Now, 2,000 advance refers to allowances that are put up for sale in the '90s, but can't be used before the year 2000. So those were referred to as advance allowances.

These results again are primarily the results of the private adjunct auction, not just --

MS. McFAWN: These being the numbers listed under number of bids?

MR. GOFFMAN: Exactly.

MS. McFAWN: That wasn't the CVOT auction?

MR. GOFFMAN: The CVOT is acting as the agent to the EPA auction kind of a distinction to what a futures product CVOT is attempting to sell.

MS. McFAWN: So they acted as an auctioneer for the private sale as well --

MR. GOFFMAN: Yes, uh-huh. What EPA did was

not exactly bland or unify the two options, but make sure they occurred simultaneously.

As you can see, the number of bids far exceeded the number actually sold. It's the best thing that a number of the bidders did not bid the price that the computer to seller demanded in these auctions.

Perhaps the analogy --

MS. McFAWN: When it says bid price, is that the price being offered by the seller?

MR. GOFFMAN: By the seller.

MS. McFAWN: Wouldn't that be the opposite?

MR. GOFFMAN: Oh, I'm sorry. I was looking up here. Yes, the bid price was --

MS. McFAWN: That was the range --

MR. GOFFMAN: Yes.

MS. McFAWN: -- by the seller?

MR. GOFFMAN: That was the range by the -- by the buyer, exactly.

Most of the sellers' minimum bid demands obviously fell somewhere in that range so that some bids succeeded in clearing the sellers' minimum price, but most, as you see, didn't.

What I was going to say was that in

addition to the auction, the SO2 system has an account for direct sales, that is, in addition to auctioning the percentage of the allowances, the

EPA holds another small percentage of the allowances back and by statute, it offers them for sale or at a fixed price higher than the price that the allowance market was expected to elicit.

That direct sell provision has never been used by anybody. The most -- in fact, all sellers have found allowances to be available in the SO2 trading market.

Indeed what we have seen, and I'm putting up a slide entitled "SO2 Allowance Values" that in the mid '90s, the price of allowances that were tracked by a private corporation monitoring the SO2 emissions allowance market fell not just by operation of the auction, but in the private exchange market, which is an indication of mostly the fact that utilities had made investments in over-control and created large banks, and therefore, large supplies of allowances representing access or accelerated or early emissions reductions.

The only thing that I can add to the slides that I have presented and that were included

in the prefiled material is just a quick comparison to reclaim program for NOx and SO2, which has many of the same basic design features of the SO2 program, but one thing it does not permit is banking.

To the surprise of some, notwithstanding the absence of banking, that market has still worked

in terms of allowing sources to use trading as a form of compliance while still achieving the required local NOx and SO2 reductions for the South Coast Air Quality Management District.

However, the absence of banking has created at least a slight environmental hazard because since the NOx and SOx reclaim units expired at the end of each season or year, there is somewhat of a perverse incentive to use them.

So the reclaim program has generated, from the information that I have, a smaller amount of early access reduction investment in a program like the SO2 program which includes banking.

Thank you for your time.

MS. McFAWN: Thank you, Mr. Goffman.

THE HEARING OFFICER: Could we go off the record for a second?

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

THE HEARING OFFICER: Previously, we had marked, but not entered into the record, certain parts of those slides. Mr. Goffman added additional slides to that --

MR. GOFFMAN: I did?

THE HEARING OFFICER: -- that were not marked already and then did not talk about some that were

marked.

I think I would like to make those part of the record as exhibits so when you are reading the transcript, they will be attached and hopefully, you can refer to them. That would make life, I think, a little bit easier for everyone. I'm just trying to sort out the best way of doing that.

MS. SAWYER: Which exhibits didn't he use that weren't marked?

THE HEARING OFFICER: The slides he used that weren't marked previously were Page 12, which is the first slide that he showed and talked about.

MS. McFAWN: Is that a slide that was used today?

THE HEARING OFFICER: That's from today. The

page number was 12.

Now, the second slide that he used was Page 17 of his prefiled testimony.

The third slide, fourth slide, and fifth slide were already entered and marked. Those were Pages 18, 15 and 16.

The sixth slide was Page 19 and then the seventh slide was Page 20.

The eighth slide was Page 21. The ninth slide was Page 22; the tenth slide was Page 23; the eleventh slide was Page 25; the twelfth was Page 26, and that was previously marked already; and the

thirteenth slide was Page 27, which was also previously marked.

MS. McFAWN: When you say previously marked --

THE HEARING OFFICER: Previously marked at the other hearing as exhibits.

MS. McFAWN: That would January 23rd?

THE HEARING OFFICER: Correct. So I think what we will do first is the ones that were previously marked, and I will enter them as exhibits if there is no objection.

I will go through them. Slide 3 was Page 18. It was entitled "Savings Through Trading."

It was marked previously as Exhibit No. 28. We will enter that into the record as Exhibit 28.

The fourth slide shown was Page 15 of his prefiled testimony and it was entitled "Macroeconomics Impact." It was previously marked as Exhibit 26.

If there are no objections, we will move that into the record as Exhibit 26.

Seeing none, we will do so.

The fifth slide shown was Page 16. It was entitled "Cost Changes If Trading Was Restricted." That was previously marked as Exhibit 27.

If there are no objections, we will move that into the record as Exhibit 27.

Then, skipping to the twelfth slide shown, which is Page 26 of his handouts, which was entitled "1994 Auction Results," it was previously marked as Exhibit 29, we will move that into the record if there are no objections.

Seeing none, that will be moved in as Exhibit 29.

Finally, we will go to the thirteenth slide that was shown today, which is Page 27,

entitled "SO2 Allowance Values," which was previously marked as Exhibit 30.

If there are no objections, we will move that into the record as Exhibit 30.

Seeing none, we will move that into the record as Exhibit No. 30.

While we were looking at the previously marked exhibits, do you want to move the ones you previously marked that weren't moved into the record?

Again, I don't think he used them during that testimony. We marked them, but then you never used them.

MS. SAWYER: Right. That is what happened. He had not used any of those exhibits during his previous testimony.

MS. McFAWN: Let the record reflect that we have marked as Exhibit 24, Page 13.

THE HEARING OFFICER: "SO2 Emissions From The

Largest Sources," that was just marked, and Exhibit 25 was marked, which was Page 14, "Regional Emissions Trades," but we are not moving those into the record, which brings us to going back to the slides he did use today.

The first slide, which was Page 12 of

his prefiled testimony, which is entitled "Acid Rain Emissions Trading," we will mark that as Exhibit 38.

(Document marked as
Hearing Exhibit No. 38
for identification, 2/4/97.)

THE HEARING OFFICER: Okay. If there are no objections, we will move that into the record.

Seeing none, we will move that into the record as Exhibit 38.

We will mark Page 19 as Exhibit 39. It's entitled "Utility Investment Decisions."

(Document marked as
Hearing Exhibit No. 39
for identification, 2/4/97.)

THE HEARING OFFICER: If there are no objections to moving that into the record as an exhibit, we shall do so.

MR. SAINES: Just for clarification, is that Slide 6?

THE HEARING OFFICER: That was Slide 6.

MR. SAINES: Thank you. Okay.

THE HEARING OFFICER: Thank you. Slide 7, Page 20 of his prefiled testimony, is entitled "Overview of Allowance System," will be marked as

Exhibit 40.

(Document marked as Hearing Exhibit No. 40 for identification, 2/4/97.)

THE HEARING OFFICER: If there are no objections, we will move that into the record.

Seeing none, we will move that into the record as Exhibit 40.

MS. McFAWN: That would be Slide 7?

THE HEARING OFFICER: Apparently, I missed Slide 2, which was Page 17. Let's go back and put that in as 41.

We are marking as Exhibit No. 41 Page 17 of his testimony, which was the second slide. That is entitled "Title 4 Clean Air Act 1990."

(Document marked as Hearing Exhibit No. 41 for identification, 2/4/97.)

THE HEARING OFFICER: We will move that into the record if there are no objections.

Seeing none, that's moved into the record.

(Document marked as
Hearing Exhibit No. 42
for identification, 2/4/97.)

THE HEARING OFFICER: Then, going back to Slide 8, which was Page 21 of his prefiled testimony, it is entitled, "Key Components of the System," we will move that into the record if there are no objections as Exhibit No. 42.

Seeing none, we will move that in.

We will mark Slide 9, which was Page 22, as Exhibit No. 43, which was entitled "Allowance Systems Compliance."

(Document marked as
Hearing Exhibit No. 43
for identification, 2/4/97.)

THE HEARING OFFICER: We move that into the record if there are no objections.

Seeing none, that will be moved into the record.

Slide 10, which was Page 23, we will mark as Exhibit 44, which is entitled "Emissions Monitoring."

(Document marked as
Hearing Exhibit No. 44
for identification, 2/4/97.)

THE HEARING OFFICER: If there are no objections, we will move that into the record.

Seeing none, we will move that into the record.

Finally, Slide 11, which was Page 25 of the prefiled testimony, is entitled "Allowance Auctions," we will mark that as Exhibit 45.

(Document marked as
Hearing Exhibit No. 45
for identification, 2/4/97.)

THE HEARING OFFICER: We will move that into the record if there are no objections.

Seeing none, that is moved into the record. Thank you for your indulgence.

At this time I guess we will open the floor up for questions. We will start with Mr. Trepanier.

MR. TREPANIER: Good afternoon, Mr. Goffman.

Mr. Goffman, would you agree with a statement that in evaluating this proposal that most importantly the question is does the emission

trading program accomplish the desired reduction in pollution?

MR. GOFFMAN: I would agree with it as a partial statement, yes.

MR. TREPANIER: How would you augment that to your satisfaction?

MR. GOFFMAN: Well, I guess you would want to augment it with considerations of the ability of the system to one, achieve the desired emissions reductions in actuality; two, to stimulate environmental and beneficial and economically beneficial innovations so that there -- so that the program can continue to perform over time; and three, you would want to see those benefits achieved at the lowest possible cost.

MR. TREPANIER: I have another question.

This question is a follow-up. The benefits beside, is that what you spoke of earlier when you talked about the incentive to reduce pollution early?

MR. GOFFMAN: I'm sorry?

MR. TREPANIER: The benefits beside -- when you augmented the question at first, you said actually you could reduce emissions, which I think

was the first question. You said beside that, you would augment that with that there would be benefits beside.

MR. GOFFMAN: Right. I think one potential benefit of a system like this is to extenuate early emissions reductions, that is, more emissions reductions in the early years of the program than are required in those years, more emissions reductions early in the program than are required.

MR. TREPANIER: Is that the type of reductions that you found that the reclaim program was not able to obtain or at least not near to the degree of the SO2 program?

MR. GOFFMAN: Pretty much, yes. I think the incentive to create extra reductions created simply by the ability to trade within the same year between the sources did stimulate some investments in -- it did stimulate some investments in extra emissions reductions, not all of which were transacted or sold or used. So there was some early reductions achieved in that program.

At the same time, some analysis I have seen suggests that if there had been some banking allowed, there would have been more

early or extra emissions reductions achieved in that program.

MR. TREPANIER: The reclaim program, you said, had no banking?

MR. GOFFMAN: That's right.

MR. TREPANIER: And the SO2 program has

open-ended banking?

MR. GOFFMAN: That's correct.

MR. TREPANIER: Now, in this current proposal, where does it fall between those two?

MR. GOFFMAN: Somewhere in the middle actually. Under the SO2 program, individual sources where sources collectively can pretty much build-up their banks as quickly as they -- as quickly as their investment decisions and the performance of their investment allows and over time, build those banks to an unlimited size.

In this program, if I remember the proposal accurately, each ATU is usable in the year in which it is issued and then in the following season. If it's not used after the following season, it expires. It can't be used to offset a unit of emissions.

However, if you assume that sources will

use a first in first out ATU management system for when they choose to save a -- for which ATUs they choose to save and which ones they choose to spend, then, the effect of that rule really isn't the limitation on the lifetime of any given ATU.

The effect of that rule is to control the rate at which any source builds a bank of ATUs and ultimately to CAAPP the total size of that bank at the level equivalent to number of ATUs that its

initially allocated.

So in effect, it's as if this rule said you can slowly build the bank up to the number up to and equalling ATUs initially allocated. That's why I say it falls somewhere in the middle.

It proposes some control on the rate of bank build-up and an ultimate limit on the size of the bank, neither of which the SO2 program does.

MR. TREPANIER: If I understand you, under the current proposal, you said that the size of the bank is limited to the size of the allotment?

MR. GOFFMAN: The size of the annual allotment, right, the size of one year's allotment.

MR. TREPANIER: And that there was no comparison to that SO2 program, like you said,

because they have as many as they want?

MR. GOFFMAN: Right, exactly.

MR. TREPANIER: In the SO2 program, they can hold that bank as long as they want?

MR. GOFFMAN: That's right.

MR. TREPANIER: Here, it's one year?

MR. GOFFMAN: Here, once you hit the bank size limit, the source will presumably continue to be allocated at ATUs and it can take some of the newer ATUs and deposit them in the bank, if you will, or retain them for the bank at a rate that at least in theory could replace the ATUs in the bank that are

unused and expired.

So once you hit the total bank size limit, you can keep a bank of that size moving forward in time over the course of the program. Even at that point, the bank never gets any bigger in that sense.

MR. GOFFMAN: Giving the experience that you have witnesses with the SO2 program building the banks and the reclaim program with no bank and little success, I understand, in getting early reductions, how do you see that this system with the one year bank is going to -- how is that going to fair.

Can you give us any estimation on the likelihood that it's going to drive early reductions?

MR. GOFFMAN: I can only give you what I call a qualitative answer. I have not done any analysis and I'm not familiar with any analysis. I don't know whether any has been done or not.

A qualitative answer is that the ability to do some banking in this system will drive some early reductions and will ultimately make the -- it will drive early reductions, I suspect, more early reductions than if you just had trading.

More important, almost as a matter if you will, is political economics. If these early reductions are retained by a number of sources in

their banks and carried forward over time, it should make it easier for the agency if the air quality modeling suggests that it's necessary to apply aggressive reductions to VOM as may be required because the sources will know that they have, if you will, an additional increment to built-in flexibility because of the banks that they have been able to build up.

So there is a direct environmental

benefit that I think would occur as a result of banking, which -- of which incrementally less would occur if you didn't have banking and there is a kind of, by extension, an environmental benefit in terms of program durability because banking will allow sources kind of a self-help form of flexibility that will make additional emissions reductions if they prove necessary as the attainment date is approaching. It's more cost-effective.

MR. TREPANIER: Would it be fair to characterize that situation that you described where the emitter has a bankbook up of a year's worth of allotments, that in that situation, if the agency were to promulgate a rule and reduce the amount that VOMs allowed to be emitted, that that rule wouldn't resolve in a reduction in VOM emissions for some time?

MR. GOFFMAN: At that point, it would depend

on what the sources did with their banks. I might not have followed the question exactly.

Are you --

MR. TREPANIER: I was addressing that which you referred to as flexibility.

Does that flexibility mean that when

the rule is promulgated -- if a rule were promulgated reducing the amount of VOMs allowed to be emitted that we wouldn't see the reduction in the amount of VOMs emitted, not initially, and how long would it take?

MR. GOFFMAN: Well, it just depends. I think the answer to that depends on whether or not most sources use most of their banks early.

My sense is -- and again, this is not based on any modeling or analysis -- is that the economic diversity of the sources covered by this program suggest that it would be very hard to predict that in response to tightening the VOM rules, a majority of sources at the same time would be using a majority of their banks because ultimately, my suspicion is that surrounding economic conditions as much as the tightening of a -- of the VOM requirements would affect what sources do in terms of either continuing to maintain their banks or using them at any given point in time.

Remember, as I understand the context

of this program, it's anticipated -- it's already anticipated that there will be step-downs in the VOM limitation requirements.

So sources are -- can be presumed to be looking forward to not only building banks, but maintaining banks at a quantity greater than zero virtually forever because they will always be facing the tension between ultimately more stringent VOM requirements and continuing economic change and potential economic growth.

I guess it's a complicated way of saying that in most cases, it would be hard to imagine any one source, let alone a large group of sources, choosing at the same time to reduce their banks to zero. There's always going to be some value in having some number greater than zero in the bank because you are looking forward to the next year of economic activity while still having to manage your VOMs.

MR. TREPANIER: I understand from your testimony that you believe there could be some benefit even if it was just an incremental benefit from ongoing trading.

By ongoing trading, I mean trading past the point that we have made the reductions, trading at a point where no reductions are being demanded.

My question now is do you believe that

we could still retain a significant benefit of this program getting those reductions while the public would retain decision-making powers regarding the distribution of pollution?

MR. GOFFMAN: Well, to tell you the truth, we have had 25 years in some ways of the public retaining a fairly large increment of control in the form of -- in the form of regulators specifying specific technologies to be used in specific groups of sources.

Implicitly, those decisions have resulted in the distribution of pollution and the distribution of costs which the sources have significantly less ability under -- than they do under a trading system to reallocate.

As I tried to suggest in my previous testimony, there has actually been a surprising and perverse trade-off between the level of control and the actual level of environmental performance at least as measured in terms of achieving the emissions reductions that you think you are going to get and in stimulating continuous invasion.

So a program like this represents an attempt to reverse that trade-off to essentially

transfer from regulatory bureaucracies cost allocation decisions and in the case of your question, some distributional, you know, geographic distributional decisions for what in the end is superior environmental performance.

That certainly has been the case in the SO2 program and probably compared to its predecessors in the South Coast Reclaim Program.

MR. TREPANIER: What I'm asking, though, is that if we use this proposal to make the reductions and the chairs have been shifted around the table or or a little more to the point the amount of emissions allowed for each polluter has been adjusted to where we need to make our reduction, now at that point, if trading ceases, does the public retain any benefit -- a significant benefit of this program?

MR. GOFFMAN: Well, the -- I guess I would argue that it still does because what makes trading happen, if you will, is certainly a continuous or continual demand to make new increments of reduction.

Also, what drives trading is economic change or economic growth, which sources have to respond to or want to seek while having to limit

their emissions to a specific level.

Even under those conditions where you've got -- where you are no longer asking for new emissions reductions, but you're demanding that sources maintain their emissions at a constrained level, trading will still stimulate sources -- some sources to make investments in over-control so they can respond to opportunities for economic growth and in doing so, continue to invest in the creation and dissemination of environmental innovations which yields to the public the benefit of their environmental performance and yields to that same public costs.

In the last analysis, the cost -- the economic benefit or environmental benefit relationship is on a continuum. Even if you are just asking sources to meet a kind of flat constraint rather than a step-down constraint, you still get benefits on that continuum.

The other thing that's worth observing here is that the EPA just proposed a new ozone standard under the National Air Quality Standards.

So in a sense, if that new standard is adopted and the public continues to demand increasing

levels of public health protection over time, then, continuous dynamic of investments and innovation are going to be very useful to the public, both on the

environmental side and on the economic side.

MR. TREPANIER: What kind of a circumstance would work against -- and I'm asking you to take a critical look, give us a critical look now?

Now, what would work against those incidental benefits of trading, the benefits beyond accomplishing a reduction in pollution?

MR. GOFFMAN: You mean if you had -- you're not talking about -- you're not talking about restrictions, you're talking about some sort of inherent economic conditions?

MR. TREPANIER: Yes. Maybe from the experience from other trading programs or otherwise, have you been able to identify anything that -- a circumstance that is going to work against those incidentals?

MR. GOFFMAN: Well, I guess generally, a lot of the dollars that I have been hypothesizing about gets spent on making the next round of environmental improvements either in the form of additional emissions reductions or in the form of new

technologies that can achieve the same reductions at lower costs. The fact that for any company, there is a lot of competition for those new investment dollars.

It may be in a lot of cases companies will look at the ability to spend what I will call

innovation money on either environmental compliance improvements or on other productivity improvements and will choose in number of cases to put the money into productivity improvements ahead of environmental improvements.

That's just, if you will, life in the marketplace. What you want to do is set up a system so that the choice of putting those innovation dollars into environmental improvements is more financially attractive and you can compete against the choice of putting the same dollars into productivity or other kind of economic improvements.

MR. TREPANIER: In designing this rule or improving this rule, what should we be allowing for?

What specifically are you -- is there something specifically you are describing, say, from southern California, from their experience?

MR. GOFFMAN: No. The problem that I was

talking about, I don't think we have a design for particularly.

What you do want to make sure of is that you don't introduce unnecessary restrictions that don't produce significant environmental benefits, but undercut the incentive creating value of emissions trading.

So, for example, the limitation on banking in the South Coast makes developments

in over-control or environmental innovation less valuable. You know, it's just as a matter of arithmetic.

That's the kind of thing if that limitation is not otherwise environmentally required, you don't want to induce a system like this.

MR. TREPANIER: On the same line, though, if the baselines are inflated, will that impact on these incidental environmental benefits?

MR. GOFFMAN: Oh, absolutely. I'm sorry. I didn't mention it. That's a very good point.

It's absolutely critical that the nominal emission reductions -- the so-called surplus reductions free up ATUs for banking or trading for the creation of actual reductions or reductions in

actual emissions and not just reductions in nominal emissions.

For example, regarding the program for VOCs, in effect, what the potentially affected sources demanded as part of their baselines amounted to inflated baselines.

So it is absolutely critical, as I think your question points out, that the baselines correspond to real emissions occurring in the environment because you're right, your implication is absolutely right, if they don't correspond to that, then, the benefits I'm talking about not only

the secondary benefits, but the primary objectives of the program isn't effective.

MR. TREPANIER: Does your support for this proposal depend on those continuous step-downs that you are saying you are anticipating?

MR. GOFFMAN: Not literally, but in effect, yes. I mean, our support for the proposal really does depend on the agency doing a reliable and fair job of first setting the baselines to the correspondence of actual emissions and then determining over time what emissions reductions are needed or are appropriate from this sector to

achieve attainment of the ozone standard.

MR. TREPANIER: Have you considered that environmental progress in other types of pollutants might be delayed by the precedent here, that the precedent that me might establish here, that polluters might wait until their baseline is established for a pollutant prior to reducing it?

MR. GOFFMAN: Well, I guess if the only economic factor on a source was trying to get more out of its baseline, if you will, or get a bigger baseline, then, that would be more than just a hypothetical worry, and it is a hypothetical worry.

Most sources' emissions behavior, I think, is dictated by a whole host of economic factors and conditions that overwhelm whatever

incentive sources may have to inflate their baseline. If I understand this rule correctly, the core baseline years are what?

Could you remind me what the core baseline years are?

MS. SAWYER: '95 and '96.

MR. GOFFMAN: Okay. If that's the case, and this is 1997, then, most sources have already established their emissions baseline prior to the

promulgation of this program.

So that hypothetical incentive, which would apply if the baselines were set based on prospective activity or set on years subsequent to the promulgation of the program, it doesn't exist here.

MR. TREPANIER: Could you tell us about the problem that arose in southern California with cyclic emitters?

MR. GOFFMAN: If that's a term of art, I'm not familiar with it so I might not know.

MR. TREPANIER: Maybe I described it wrong. These would be polluters who emissions levels rise and fall substantially, but over a period of years, not within one year, but maybe over a period of four years. There may be spikes.

MR. GOFFMAN: Well, from a -- if you have a true CAAPP and if you have set the CAAPP correctly

or the progressive CAAPs correctly according to the demands of air quality, then, I'm having a hard time seeing what those so-called cyclic emitters present in terms of problems to the integrity of the system.

MR. TREPANIER: Okay. Do you have an opinion

if the CAAPP in this program is set correctly?

MR. GOFFMAN: I don't have an opinion because my sense is what the agency has decided to do is engage in a progressive process to set a succession of steps or CAAPs.

As far as prima facie, the process looks like a reliable one. Since we haven't seen the results, you know, for the critical years, you know, it's just -- you can't judge it yet basically.

MR. TREPANIER: A progression of CAAPs, that's the stepping down that you referred to earlier?

MR. GOFFMAN: Yes.

MR. TREPANIER: I know in your testimony you referred to the Michigan program as illegitimate because it lacked the CAAPP?

MR. GOFFMAN: Yes.

MR. TREPANIER: Does the Illinois program -- does it have a CAAPP?

MR. GOFFMAN: That's my understanding, yes. It has a CAAPP on -- at least on a mechanical level,

the fact that the rule would authorize the agency to hand out only a fixed amount of ATUs. So as a mechanical matter, it will have a CAAPP.

The real issue is the number of ATUs that the agency accumulates that it can hand out that correspond to appropriate total levels of VOM emissions for the sector. Again, the agency appears to be devoting a significant amount of resources in making sure that number is set properly.

The Michigan program, you know, was treated as surplus and therefore, transactable emissions reductions, emissions reductions that could not reliably by definition be assumed to be a surplus because sources there weren't operating under a CAAPP.

MR. TREPANIER: Now, when you spoke about addressing these spikes through properly setting the CAAPP, if the system -- if this proposal in front of us were to allow polluters to emit the level of their spike and issue them allotments at the level of the spike, would that be a properly set CAAPP?

MR. GOFFMAN: Well, I don't -- I would imagine that what the spike levels would inform, you know, hypothetically the spike levels would perform is simply the baseline term of the equation that produced the -- whose product was the CAAPP number.

I assume that in the process of

identifying sources' baselines for this sector, if a number of these, what you call, cyclical or spiking units return in their emission spikes as their baseline, the agency would have to prepare those total baselines with its air quality modeling results, and simply impose a more stringent emission reduction percentage to get that initial baseline down to the level of VOM emissions dictated by the air quality models.

MR. TREPANIER: In this instance, you think the amount of reductions required would be dependent on how the baselines are recording?

MR. GOFFMAN: I think not solely. I think how the baselines are reported is critical, but the CAAPP setting, or the CAAPs setting process, will equally and critically be formed by the air quality model.

MR. TREPANIER: Is that in this proposal are you speaking?

MR. GOFFMAN: Yes. In this sort of four squares of this rule, plus having been on the design team and having been believed by the agency several times, as to how it was going to go about setting the CAAPP. That's the basis of the statement I just made, about role of the air quality modeling

results.

MR. TREPANIER: Is it your understanding that the CAAPP on this program is going to be based on air quality monitoring --

modeling?

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

MR. TREPANIER: Do you know any place in the rule that you would point us to that would show us that the CAAPP is going to be based on air quality modeling?

MR. GOFFMAN: No. I can't point to anything in the rule because, if you will, that's not what this rule is about. I'm generally familiar with how the states establish their state implementation plan which is their overall strategy for all affected sectors.

Certainly, that depends critically on air quality modeling results and the sector would be intimately involved in the formulation of the overall state implementation plan.

It's based on general knowledge. That's where I make my statement. This particular rule is not designed to address that issue. It doesn't

apply.

MR. TREPANIER: You understand that there was going to be more stepping down and that has something to do with your program?

MR. GOFFMAN: Yes.

MR. TREPANIER: Now, if the initial CAAPP is based and includes -- makes an allowance for these spikes, makes an allowance by setting the allotment at the level of the spike, will the CAAPP be legitimate?

MR. GOFFMAN: Well, it depends on the percentage of reduction applied to those -- applied to the baseline for the sector.

MR. TREPANIER: I see. Relative to the size of the sector?

MR. GOFFMAN: Right. And that percent -- the legitimacy of that percentage reduction depends not just on its arithmetic affect on the baselines, which may or may not include spikes, but also depends on whether or not the product or the baseline with or without spikes and percentage of reduction put the nonattainment area on a path of reasonable further progress towards attainment, which in turn is dependent on the air quality modeling that

information the formulation of the state implementation plan.

MR. TREPANIER: In your previous testimony,

you spoke to -- in regards to the SO2 program, that there were theoretical risks, and these -- you were referring to a trade-off between actual present benefits and theoretical risks. I believe we were talking about the banking of SO2 at that time.

MR. GOFFMAN: Yes.

MR. TREPANIER: Now, in this current proposal, could you identify some of these theoretical risks?

MR. GOFFMAN: Again, I think banking potentially present the same risks. If you -- in the risk -- in the context of ozone formation, the amount of VOM emitted at one time under certain conditions can lead to formation of excessive amounts of ozone.

If you, in effect, move VOM emissions from the past into the present -- into some future present through the availability of the bank, then you could end up with more VOM emissions than the air can tolerate in terms of ozone formation.

So there is no doubt that the design of this program had to involve a conscious weighing

of the trade-off between the benefits, direct and indirect, of incentives for early reductions, flexibility and cost savings, and the risk of so-called excess VOM emissions at some future time.

Essentially, in every program, no matter what paradigm you are using for designing a program

like this one, if you are using the command and control paradigm, it involves having to make final decisions on trade-offs between risks and benefits.

You may, for example, under a command and control program create more certainty as to where emissions reductions were going to occur, but you may not be able to create certainty as to the total amounts of VOM into the air at any one time even though you don't have bank and trading.

So basically, to identify the kind of trade-off that I just identified, it is not in itself unique about this program or dispositive because any time you design a program, no matter what model you are using, you are making these kind of essentially trade-offs between different environmental benefits and effects.

THE HEARING OFFICER: I have been giving you a pretty far leeway in letting you ask these

questions. It's been roughly about a half an hour. I was wondering if there was any way you could start wrapping up your questioning?

Some of your questions seem to be going a little bit beyond the scope of this witness's testimony and more into how this rule is actually going to work. That's maybe more of a question better directed towards the agency.

MR. TREPANIER: Maybe, you know, in the

instance of that question, that's not my intention, we will just quickly move over that and then speed this up.

THE HEARING OFFICER: Do you have many more questions to go?

MR. TREPANIER: I think about 20.

THE HEARING OFFICER: Twenty more questions? Okay. Well, try to discern which questions would be better asked of agency and Mr. Goffman.

MR. TREPANIER: In your previous testimony, you said in the history of most of these programs, that the information, that's the emission information, is provided by the polluters and that it's essentially a quantification or a measurement than the firm's actual emissions.

Now, does the proposal before the board differ in how -- in that regard?

MS. SAWYER: I suggest that that's one of the questions that would be better asked of the agency.

MR. TREPANIER: Okay. I'm moving through a couple questions here on my own.

THE HEARING OFFICER: You do understand that you can always ask those questions. I'm not saying you can't ask those questions to the agency. It's just that I think they could give you better answers.

MR. TREPANIER: Okay. Would you agree that

a significant benefit of this proposal, if it were implemented, would be that emissions reductions begin to occur as a result -- I would like to start the question over again.

Would you agree with the statement that the benefit of this proposal would occur when emission reductions begin as a result essentially of a CAAPP in its legal implementation?

MR. GOFFMAN: Well --

MS. SAWYER: I don't quite understand the question.

MR. GOFFMAN: Let me answer -- try to answer.

I think this is, if you will, a multi-benefit program because it's dynamic.

On its face, it's a statement that attempts to identify these -- one benefit is the single most important benefit or one aspect of the mechanism established by this program is the critical mechanism. The premise of that kind of question, I disagree with.

MR. TREPANIER: Well, I just wanted to point out that I have been taking this from your transcripts from Pages 321 to 322, Lines 23 through dash two. Maybe I could restate it. I may have --

MR. GOFFMAN: Well, I've learned a lot in two weeks obviously, so. . .

MR. TREPANIER: Let me restate my question.

MR. GOFFMAN: I'm glad I had a chance to come back now.

MR. TREPANIER: A benefit occurs in this program when emission reductions begin to occur and they occur as a result essentially of a CAAPP in its legal implementation.

MS. SAWYER: Well, I think you already asked this question, in essence.

MR. GOFFMAN: I mean, that's a true statement

but. . .

MR. TREPANIER: Okay. I just wanted to bring this out for the board, this opinion that the CAAPP -- the importance of the CAAPP.

MR. GOFFMAN: Right.

MR. TREPANIER: And you also believe that we cannot trade our way to attainment?

MR. GOFFMAN: We definitely cannot trade our way to attainment, correct.

MR. TREPANIER: And the value of a pollution allotment, is that created when the CAAPP is installed?

MR. GOFFMAN: Implicitly, I guess that's right.

MR. TREPANIER: And isn't that --

MR. GOFFMAN: Actually, the value isn't realized until somebody produces the additional, that is, the surplus emissions reduction in making that --

given that that emission allotment is available to bank and trade.

MR. TREPANIER: Let me refer to my prefiled questions.

Who are the major contributors to the Environmental Defense Fund?

MR. GOFFMAN: Well, I --

MS. SAWYER: Objection, relevance.

MR. GOFFMAN: I would be happy to say that the major contributors to the Environmental Defense Fund are fill and profit foundations and individuals. We have about 300,000 individual members who have made contributions of varying amounts. That's about 60 percent of our budget. Almost all of the rest is from fill and profit foundations.

MR. TREPANIER: Does the -- this is Question No. 8. Does the design team member from the Environmental Defense Fund have active partnerships with an environmental group, and in particular, Citizens For A Better Environment?

MR. GOFFMAN: Do we have an -- I think some of my colleagues work on projects actively with Citizens For A Better Environment.

We have, in fact, an environmental network or alliance that works with the CBE on a lot of issues. I don't know whether the EDF folks who have worked with the CBE directed this issue to the

CBE people that they work with. I didn't personally.

MR. TREPANIER: Did you see critiques

provided by environmental groups of this proposal?

MR. GOFFMAN: I think I did. I think -- and this is just based on recollection. I think that The American Lung Association and the Midwest Center for Environmental Policy submitted some comments to the agency staff, which were shared with the design team.

MR. TREPANIER: Do you know when the CAAPP on this program could be last expanded or arranged without further ruling?

MS. SAWYER: I suggest that that's another question that you should ask of the agency.

MR. TREPANIER: Do you have any forecast to what degree the market system may tend to drive up low profit VOM emitters from business?

MS. SAWYER: I think that that is probably a better question asked during the economic portion of the presentation.

MR. TREPANIER: For sources that opt to --

MR. GOFFMAN: You know, that doesn't make any -- that question really doesn't make any sense because by definition, a market-based program is less costly than an alternative approach.

So by definition, it's less likely to

present a kind of fatal -- economically fatal threat to VOM emitters with low marginal profits.

MR. TREPANIER: The system does allow the pollution rates to be purchased by the largest wallet, do they not?

MR. GOFFMAN: Well, pollution rights are just one form of compliance. Any affected source can and is obligated to purchase from a menu of compliance alternatives and in effect, what emissions trading does with the availability of ATUs is expand that menu and expand the flexibility or accessibility of all affected sources in that vein.

So by most economic systems, the more choice you have, the more likely it is that you would be able to acquire what you want at low cost.

In this case, whether you are a large source or a small source or a highly profitable source or a marginally profitable source, the compliance menu is going to have items on it that are going to be cheaper and more varied than they would be under a command and control system.

MR. TREPANIER: Are you familiar with the provision in this proposal to allow sources to opt to accept the voluntarily 15-ton limit?

MS. SAWYER: Is there a follow-up question to this? I guess I'm thinking that this is probably a better question asked of the agency.

MR. TREPANIER: I would ask the follow-up and then maybe you could make a determination.

MS. SAWYER: Yes, right. Could you do that?

MR. TREPANIER: Does the agency have a -- do you, Mr. Goffman, have any forecast of how many and to what degree polluters will use this flexibility allowed under the 15-ton CAAPP?

MS. SAWYER: That would be a better question asked of the agency.

MR. TREPANIER: I think I have asked all of my questions, but if I might look through my notes for a a moment. . .

THE HEARING OFFICER: Sure. Why don't we take a couple of seconds.

In the meantime, does anyone else have any questions for Mr. Goffman?

Go ahead.

MR. SAINES: Thank you. Good afternoon, Mr. Goffman. I just have a few questions.

First, regarding the banking system,

as I understand it from your testimony, under SO2, the bank, once you acquire allotments into the bank, they are indefinite?

MR. GOFFMAN: Yes.

MR. SAINES: Under ERMS, they expire?

MR. GOFFMAN: Right.

MR. SAINES: So under ERMS, the ability to develop a bank of significant ATUs requires a period of years or a period of time?

MR. GOFFMAN: For a substantial investment in over-control.

MR. SAINES: At one particular time?

MR. GOFFMAN: Right, and then applying it continuously.

MR. SAINES: All right. I guess the question is for purposes of a source that is interested in expansion, once the source expands and then utilizes the ATUs that it has either acquired in the bank for a period of time of one year through a significant investment or has development over a period of, say, three or four years through modified production, isn't it true that the ATUs are no longer available for that year once they are used?

MR. GOFFMAN: Once they are used, yes.

Remember, this program is not just a source-by-source banking program. It's a trading program, which means that it's quite possible that the supply of ATUs --

there will be essentially a continuous or a continuum type of relationship between the supply of ATUs transacted between sources in the market and the supply of ATUs that reside in any one source's bank.

For example, one of the brokerage houses in the SO2 market runs what amounts is a continuous spot auction. So virtually at any time whether a source has its own bank or not, it has access at a fairly low price to additional SO2 allowances.

Given the size and diversity of the sources in this market, it's not hard to imagine that either the same brokerage firm or copycat can establish a similar system in making the distinction between what a source can build up in its bank and what would be available in the intersource trading market, you know, less salient and in some ways, less economically significant.

MR. SAINES: But do you feel that that's -- given that the banking system -- inherent in the ERMS banking system is an expiration date, do you still

feel that that's going to happen under the ERMS?

MR. GOFFMAN: Yes, because then the salient affect of the expiration date is on the rate at which these banks are built and the ultimate size of the bank.

Having any given set of ATUs expire

is not limiting in the sense that they are going to be replaced the next year by the allotment coming to the source and if the source is continuing to operate or whatever over-control strategy it has, expired ATUs will immediately need to be replenished on-site, if you will, of the individual source and can be augmented by purchasing allowances in -- or purchasing ATUs in the market.

MR. SAINES: So for a source that does develop their own bank and then expands using that bank, they are required, then, under this program to seek other ATUs in the market to make up for the next year's --

MR. GOFFMAN: If they need to -- if they have emissions that they want to offset, yes, by the intent of the expansion, but you know, it seems to me that economically even though the ATUs that they have in their bank are initially or nominally transferred to them by the agency for free, they exist in the

bank only because the agency or -- sorry -- the source has made some affirmative investment to create the emissions reductions needed to allow them to retain those ATUs.

So when you are talking about an ATU being used in the bank as opposed to the ATU being purchased, ultimately you are not really thinking in economic terms between an ATU that cost you nothing and an ATU that cost you more than nothing.

You know, you are talking about basically non-zero cost ATUs whether you are talking about your own bank ATUs or somebody else's ATUs.

The reason I'm going on like this is the implicit advocacy in your question presupposes or makes essential if this were only a single source or a source-by-source banking system. Again, it's not.

So the economics which might make the one year limit and it's affect seem relatively Draconian in a source-by-source banking program, really, don't pertain here because this is an additional trading program.

MR. SAINES: I have a question related to a slide I believe you showed in your testimony that

had a list of compliance alternatives, I think, under the SO2 program, sources that were faced with choices.

Can you elaborate on choices that the Phase 1 sources under the SO2 were faced with when the SO2 program came into effect?

MR. GOFFMAN: Well, the most popular alternative to the SO2 program that was developed would have required Phase 1 sources to put on technology, that is to say, they would have required SO2 emissions stack scrubbers.

The availability of cleaner fuels or

cold washing techniques or even to a certain extent energy conservation would have been irrelevant because they really would not have been available choices because under that alternative program, compliance would have been defined in terms of when you put a stack scrubber on your stack.

Essentially, by legislative fiat, had that alternative program been adopted, that whole menu would have been eliminated.

As it happens, sources are using either stack scrubbers or energy conservation. A lot of sources are switching to lower sulfur content of

coal. A lot of sources are switching to natural gas or coal firing with natural gas. Some sources are even doing more of what is called cold washing. None of those compliance alternatives would have been available.

MR. SAINES: None of these compliance alternatives would have been available --

MR. GOFFMAN: If the alternative approach or just having the legislative mandate about what technology should be used or adopted.

MR. SAINES: All right. Can you -- do you have something?

MS. MIHELIC: Immediately following that question, if you don't mind, you said that they wouldn't have been available as other alternatives.

Is that because they weren't discussed previously or what?

MR. GOFFMAN: No, no, no. They would have been legally excluded by Congress. Congress said you're in compliance if you put a stack scrubber on and you are not in compliance if you don't.

Then, the option of not putting a stack scrubber on, but buying low sulfur coal, would have resulted in SO2 reductions, but would have still left

the source out of compliance.

MS. MIHELIC: Did these utilities ever discuss with Congress the option of using alternatives other than the the low -- other than the scrubbers and other than the trading program?

Did Congress ever consider this?

MR. GOFFMAN: Well, my recollection from having read a lot of the -- been at a lot of the hearings is that Congress did consider the availability of various options and ultimately considered the sort of inadvisability of trying to sort of take a snapshot in time of what the available technology was, make assumptions about what would or would not have been available under different subsequent conditions, and then select one or two technologies.

MS. MIHELIC: Would every utility have to install scrubbers?

MR. GOFFMAN: Under?

MS. MIHELIC: Under the one approach you said they were going to command?

MR. GOFFMAN: Yes. Under Phrase 1 of that approach, anywhere from ten to 20 utilities would have been specified by Congress and these ten to 20

sources would have been told to put a specific kind of technology on it.

MS. MIHELIC: How many sources are currently in the Phase 1 category?

MR. GOFFMAN: About 110, I think.

MS. MIHELIC: But only ten or 20 of those would have been required to install the additional controls?

MR. GOFFMAN: Yes, but it's not clear you would have gotten the same amount of emissions reductions although most analyses presented to Congress and the EPA at the time suggested that would have been extremely expensive to ten or 20 plants. It was a hit list approach.

MR. SAINES: So are you saying that less than 20 or 30 sources did, in fact, install add-on controls then?

MR. GOFFMAN: I don't know offhand. One of the other variables is that in the last analysis, I think, Congress acquired more total emissions reductions under Phase 1 of the program that was

adopted.

I think it's possible that in effect more than ten or 20 used add-on controls, but they

used add-on controls of varying technological characteristics and ultimately produced more total emissions reductions.

MR. SAINES: Of the 110 or 111 Phase 1 sources, do you know how many of those sources rather than adding on controls decided to switch to low sulfur coal?

MR. GOFFMAN: Can't give you a number, but the answer is lots, lots.

MR. SAINES: Lots?

MR. GOFFMAN: Yes.

MS. MIHELIC: As a quick follow-up to that question, do you know how sources of those Phase 1 sources reduced their sulfur dioxide emissions by making internal changes in their operations?

MS. SAWYER: As compared to what?

MS. MIHELIC: By somehow modifying their operations to come up with reductions necessary.

Basically, how many sources did that?

MR. GOFFMAN: I believe that MIT is in the process of doing a survey of compliance responses and at a presentation I heard a couple months ago, it was suggested that a lot of sources are doing a combination of things, which include making internal

changes, using more coal washing, mixing their fuels.

There was a significant number of plants that instead of doing just one thing, they are using a combination of internal changes and operational changes to produce the result.

MR. SAINES: I don't mean to belabor the point, but is there any chance you could give a rough estimate in terms of percentages as to the number you refer to as being a lot.

MR. GOFFMAN: Well, no. It's a very high percentage.

MR. SAINES: Above 50 percent?

MR. GOFFMAN: Probably, yes.

MS. McFAWN: For their benefit and perhaps others, is there some report or preliminary report? You mentioned MIT is in the process, but is there something else we could read to know more about the SO2 program?

MR. GOFFMAN: I believe I have saved the handouts from that oral presentation I heard. If I have, you are welcome to that.

MS. McFAWN: I didn't necessarily mean that. I just meant has anybody prepared either in a magazine or otherwise some article that would explain

how the SO2 program is to date?

MR. GOFFMAN: I think if I were less tired, I could probably answer your question.

MS. SAWYER: We did submit a couple things on that as part of the record. There is U.S. EPA's acid rain program update.

MR. GOFFMAN: That's right, that's right.

MS. SAWYER: That's May '96. It's in the record. We can take a look at that.

MS. McFAWN: Great. That and other resources would answer your questions for you.

MS. SAWYER: We also had another article that we included that was prepared by MIT and that's also part of the record.

MS. McFAWN: Thank you for pointing those out to us. I think that would help answer a lot of these detailed questions for us.

MS. MIHELIC: I have a few more questions.

Under the SO2 program, you showed a slide previously today that if a source exceeded its allotment, there were penalties that were assessed, one being a $2,000 penalty.

Was that per ton?

MR. GOFFMAN: Per ton, yes.

MS. MIHELIC: In addition, it was a one-to-one or somehow it had to decrease its allotment the following year, is that correct?

MR. GOFFMAN: Right, right.

MS. MIHELIC: Was that on a one-to-one ratio so that if it exceeded it by 50 tons, it had to reduce next year by 50 tons?

MR. GOFFMAN: That's correct.

MS. MIHELIC: How did they reach this one-to-one ratio?

MR. GOFFMAN: My recollection is that a $2,000 per ton automatic penalty was considered quite stringent and not Draconian relative to the expected costs of compliance and therefore, the combination of that Draconian automatic, and I emphasize the word automatic, monitary penalty and the one-to-one offset provided more than enough incentive for virtually every utility to comply.

MS. MIHELIC: Okay.

MR. GOFFMAN: And if I remember correctly, the proposed rule doesn't have that financial automaticity. So the element of automaticity adheres exclusively and a demand for additional ATUs to be

purchased by the source are to be deducted from subsequent allotments.

MS. MIHELIC: Is my understanding correct that

any source that is subject to the Title 4 program would be subject to the Title 4 program regardless of where it was located in the United States?

MR. GOFFMAN: Yes, in the 48 contiguous states, Alaska and Hawaii are not covered.

MS. MIHELIC: So if a source was currently located in New York and it moved it California, it would still be required to comply with the same regulations under Title 4?

MR. GOFFMAN: Well, probably technically if it did something like that -- if it's California embodiment, it would be considered a new source. It would have to go and purchase allowances or somehow acquire allowances from a fixed allocation of allowances distributed to existing sources.

MS. MIHELIC: But aside from any state regulations, the federal regulations would be the same?

MR. GOFFMAN: Yes.

MS. MIHELIC: Does the cost of complying with the Title 4 program for similar sources or merely

identical sources differ depending on where the sources are located?

MR. GOFFMAN: Probably, but I don't think you can sort of establish a firm correlation between cost differential and geographic locations.

MS. MIHELIC: What would be the reasons for

the cost differential?

MR. GOFFMAN: Well, first of all, Congress used different initial allowance allocation sources for different categories of plans.

MS. MIHELIC: I'm assuming you are in the same category of plans?

MR. GOFFMAN: Well, I'm told by utility companies that if you are on a lake, your cost of compliance is higher than if you are on a river because it's easier to get long distance transported low sulfur coal if you're located on a river than if you are on a lake.

MS. MIHELIC: Okay. So that goes to the cost of transportation and all that?

MR. GOFFMAN: Yes.

THE HEARING OFFICER: While I appreciate Mr. Goffman's willingness to answer all of these questions, could you start explaining the relevancy

of how you are going to tie this in with the proposal that is before the board?

MS. MIHELIC: Part of this is because it's a nationwide program. Regardless of where the source is located in the United States, it has to comply with this program.

This program here in Chicago and for Chicago sources. It's only based upon existing in Chicago, but when going somewhere else, it won't --

if a cost were to exist somewhere else, the costs of perhaps reducing production there is less than in Chicago.

MS. McFAWN: I think Mr. Goffman is here to talk about the SO2 trading program. I don't think he is here to do a comparison to every detail to the program proposed before us. If you want to make that comparison between the SO2 and the proposal, that's probably best done through your testimony.

MS. MIHELIC: He is the expert here on the SO2 marketing program.

MS. McFAWN: He is, and you are asking him questions that we know to be the obvious. That's a nationwide program and I think those distinctions have been made without belaboring the point.

MS. MIHELIC: And I was just talking about the cost of compliance.

MS. McFAWN: Right, and we understand the sources regulated under the SO2 are significantly different than the types of sources geographically and otherwise.

So I think if you would like to make those distinctions before the board, the better way to do it is through testimony rather than by asking him to do side-by-side comparisons. Okay?

MS. MIHELIC: Okay. That was my last question anyways.

MS. SAWYER: Mr. Goffman, if you wouldn't mind just this one question and then --

MS. McFAWN: I appreciate your cooperation.

MR. GOFFMAN: The reason that it's a nationwide program is that it adheres to the nature of the environmental problem. It's a different environmental problem with a different pollutant acting in an air shed defined with different characteristics.

MS. MIHELIC: When Title 4 was first implemented, had the 111 sources that are currently reduced emissions previously reduced their emissions

based on the requirements of the Clean Air Act?

MS. SAWYER: I think you have already asked this question of another agency witness. We're going to have to keep this thing rolling. You did ask this question.

MR. GOFFMAN: Some have, some haven't.

MS. MIHELIC: Some have, some haven't?

MR. GOFFMAN: Right.

MS. MIHELIC: Under the Clean Air Act?

MR. GOFFMAN: Right.

THE HEARING OFFICER: Do you need some time?

MS. MIHELIC: I just have one more question.

You stated earlier that the cost of coming or reducing emissions in the future would be less -- you expect it to be less than current costs

of reducing emissions, is that correct, under the SO2 program?

MR. GOFFMAN: I think at least up to a point, the marginal costs over time will go down. I say that because traditionally, under the Clean Air Act programs, even in the face of increasing reduction requirements, the development of technology and other control strategies over time has a tendency to make things cheaper.

MS. MIHELIC: And it's not because -- it wasn't based upon the assumption sources would have reduced by more earlier?

MR. GOFFMAN: That has something to do with it as well. In the context of the SO2 program, that's right, but that's just one factor. There are technology progress factors as well.

THE HEARING OFFICER: Mr. Trepanier, do you have some quick questions?

MR. TREPANIER: Yes. I think it's just the one question.

Are you familiar with the New Jersey VOC market trading program handling of cyclic pollution histories, the spikes?

MR. GOFFMAN: I'm not familiar with that, no.

MS. SAWYER: Thank you, Mr. Goffman.

THE HEARING OFFICER: Are there anymore questions?

MS. SAWYER: I'm sorry.

THE HEARING OFFICER: Does the board have any questions?

Then, I think we will take a ten-minute break at this point.

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

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

Why don't we just start out with Tenneco's questioning and we will see how that goes.

MR. FORCADE: Good afternoon. My name is Bill Forcade from Jenner & Block representing Tenneco Packaging. With me is Larry Lamb from Tenneco Packaging.

We presubmitted questions in two phases. With the permission of the hearing officer, I would like to start with the first and proceed to the second.

Our first set of questions deals with the interrelationship between the proposed emissions reduction market system and the nonattainment new source review. I would like to pose Question 1 by example.

The emissions reduction market system will impose new regulatory requirements on facilities which are already subject to the Nonattainment New

Source Review Program.

Consider the following scenario in which a source may be required to comply with both programs.

Facility X wishes to locate a new emissions unit in the Chicago nonattainment area. Facility X will submit a complete construction permit application on June 1, 1997. Facility X anticipates that the new unit will meet LAER requirements and will have actual VOM emissions of ten tons of VOM per month and potential to emit PTE or allowable of 15 tons per month. Thus, Facility X appears to be subject to both ERMS and nonattainment new source review.

Question A will Facility X be required to obtain emissions offset credits under the existing Nonattainment New Source Review Program?

MR. ROMAINE: Yes, it will.

MR. FORCADE: Under nonattainment new source review, what amount of offsets will facility X need to be required to purchase 156 tons, 1.3 times the actual emissions, or 234 tons, 1.3 times the amount of annual PTB?

MR. ROMAINE: Well, certainly the actual

emissions cannot be relied upon. The source isn't built. So we don't know what the actual emissions are.

Offsets under the current program would be based on the potential to emit. This would, in fact, be the permitted emissions of the new emission unit. So it isn't what I would say a worst case potential to emit.

It's the decision of the source, what level potential to emit or permanent emissions it wants placed on its permit. Of course, once it accepts that limit, it's committed to that number.

MR. FORCADE: Under Nonattainment New Source Review, must Facility X require offsetting emissions from a unit that has that number of actual emissions or that number of allowable emissions?

MR. ROMAINE: Under new source review, we are looking for actual emission reductions.

MR. FORCADE: So offsetting for a new source under nonattainment new source review, you will offset with actuals?

MR. ROMAINE: Yes.

MR. FORCADE: Is this purchase of offsets a one-time only purchase when the facility begins

operations or annually?

MR. ROMAINE: It is a one-time agreement to provide emission offsets. Those emission offsets have to be, in fact, a permanent reduction in emissions that will continue year after year.

MR. FORCADE: Under Nonattainment New Source Review, may a Facility X offset summertime VOM emissions with non-summertime VOM emissions?

MR. ROMAINE: No.

MR. FORCADE: If not, what is the agency's authority?

MR. ROMAINE: Well, the fundamental authority is under Section 173 of the Clean Air Act, which requires that offsets be provided so as to provide reasonable further progress.

Since reasonable further progress is a measure of reductions emissions that contribute toward attainment and because reasonable further progress for ozone is measured in terms of summertime emission reductions, that effectively means that you cannot compensate for increases in summertime emissions with emissions from outside that period of time.

Those provisions are carried out or

carried through into the state program. The state new source review rules also include provisions requiring emission offsets to contribute to reasonable further progress.

They also have provisions pursuant to federal regulations that require that emission offsets have the same qualitative effects for health and welfare.

Again, since we are dealing with seasonal problem, reductions in wintertime emissions would not have the same seasonal effects as reductions in summertime emissions.

Now, as a practical matter, what we talk about in most cases is annual offsets in exchange for annual emission increases, but that assumes consistent operation throughout the year so that effectively you are getting appropriate offsets for summertime emissions and you're getting appropriate offsets for wintertime emissions.

But there would not be a seasonal disparity where you are specifically allowing increases of precursors during the period of time where we have a problem with ozone in exchange for decreases in precursors that have minimal affect

on air quality.

MR. FORCADE: Number F under nonattainment new source review, may Facility X offset summertime

emissions by using existing control technologies throughout the year including non-summertime?

MR. ROMAINE: Again, you have to look at it carefully to make sure you are getting comparable offsetting reduction in the summertime for the summertime increases in emissions.

MR. FORCADE: Under the ERMS program, will Facility X need to purchase ERMS credits or allotment trading units?

MR. ROMAINE: The situation that's been described here would be a project that would have a complete construction permit application submitted on June 1, 1997. Presumably, that permit would be issued before January 1, 1998.

So it would qualify as a pending project. Pending projects are considered encumbents. So it would receive an allotment of ATUs. We would not expect that this source would now have to both go out again as if it were a new participating source and purchase ATUs from the very starting point for this new project.

MR. FORCADE: As a brief follow-up, assuming that the facility is submitting a nonattainment new source review permit application with the LAER demonstration, how many of those have you issued in a six-month period in the past?

MR. ROMAINE: Well, I don't think I can

calculate it. I can't divide by zero.

MR. FORCADE: Okay.

MR. ROMAINE: We haven't issued any new source review permits since I don't know when that required a LAER determination.

MR. FORCADE: What then leads you to believe that a June 1st submission would lead to a January 1st permit issuance?

MR. ROMAINE: I can't make that assumption, but in these circumstances, hopefully, we have closely communicated and worked with the applicant ahead of time and we are aware of the schedule that is necessary so that permitting can be successfully completed by January 1, 1998, so that the pending project's status is achieved for this project.

Obviously, the other thing about it that I should remind you or put in the record is obviously allocation of ATUs pending project would only occur

if the project is actually built, it becomes optional, and there would be no issuance of ATUs for a pending project if this project received a permit, but was never pursued.

MR. FORCADE: Under H, if the ERMS program is adopted by the board, but U.S. EPA has not yet approved them or switched under the nonattainment resource review to ERMS credits, will Facility X need to purchase ERMS credits or ATUs in lieu of

offsets?

MR. ROMAINE: Well, I guess I need to back up. Illinois nonattainment area and New Source Review Program is approved by U.S. EPA. I believe it was approved in late 1995. So it's basically business as usual until the ERMS proposal is finalized.

MR. FORCADE: I apologize. I honestly did not believe you would say that you would process LAER applications in six months. I assumed the answer was no and then this logical question then flowed.

In that interim between when ERMS was adopted by the board and the subsequent date where ERMS summertime offsets are approved by U.S. EPA as

a replacement for the current annual ERMS, I was trying to find out if this period of overlap contains a dual purchase of offsets of ERMS credits?

MR. ROMAINE: Well, the whole purpose of the pending project provision is to prevent that to overlap and the approach provides that a source that has, in fact, provided offsets under the current program, that it has gotten their construction permit in place and issued at the time that ERMS applications are due, and it would be treated as encumbents with respect to those emission units.

MR. FORCADE: Then, going on to Question I,

at a period of time after the ERMS program was finalized and U.S. EPA approves Nonattainment New Source Review, would facilities at that point need to purchase ERMS credits or ATUs and would these be equivalent to the nonattainment new source review offsets?

MR. ROMAINE: I assume we are continuing with this example. We are dealing with a pending project. We are assuming that we can successfully complete the pending -- the issuance of the construction permit pursuant to that, that it would be an incumbent source, so it would receive an allocation of ATUs.

Now, this doesn't necessarily address -- I'm sorry. It would receive an allocation of ATUs for that new unit.

As the program is currently set up, that would be based on the first three seasons for which it has optional data. Based on that allotment, it would then go into normal operation of the trading program having to hold ATUs for its emissions.

In addition, I can't really speculate what else might be going on elsewhere at Facility X that might affect whether it has emission units to which it needs to obtain ATUs.

MR. FORCADE: Question 2, continuing the example from above, assume that Facility X has a

construction permit and Facility Y shuts down on January 1, 1997.

Under nonattainment new source review, may Facility X bank or hold the offsets from Facility Y until Facility X is allowed to start operations?

MR. ROMAINE: Well, this question poses a lot of background. I guess the first point to make is that offsets are addressed as part of the issuance of a construction permit.

So this issue of starting operations is not really relevant. When we would be looking for offsets is at time or up to and including the time the construction permit was issued.

The other thing that's been put forth in this example is that we are dealing with an offset -- an emission reduction that is suggested as an offset that is due to a shutdown. The shutdown is described as occurring January 1, 1997, but the permit application for the new unit is described on June 1, 1997. So the permit application comes in after the shutdown.

MR. FORCADE: Okay.

MR. ROMAINE: The question, then, is did the shutdown occur before the project or did the shutdown occur after the project was initiated?

As far as background, going back another step, there are certain restrictions on use of past

shutdowns as an emission offset. It's been developed by U.S. EPA.

It is reflected in our rules because it is part of U.S. EPA's guidance for nonattainment area new source review programs, but what U.S. EPA's guidance and what our rules currently say is that

you can't use a past shutdown as an emission offset unless the new project using the offsets for are a replacement for the shutdown piece of equipment.

So the real question is even though the shutdown occurred on January 1, 1997, was that shutdown pursuant to agreement with the facility proposing the new project, was this their preliminary attempts to work out an arrangement to provide offsets instead of working ahead of time and this agreement was finalized well before January of 1997, or was it just a matter of finalizing the other details until the construction application was actually submitted in June of 1997, so the shutdown would be considered a prospective shutdown or was this a situation where the source came forward mid-1997, somebody came up with an idea of a project, they realized they have to submit a construction permit application, and then they started the initiative of finding emissions reductions to be used as offsets.

In that case, the shutdown would have

already occurred. There was no prior agreement with the applicant about use of that shutdown. That would have to be considered a past shutdown and would only

be available for use of that particular project if there were replacement situations involved.

MR. FORCADE: As a point of clarification, you mentioned the word a replacement as one of the requirements for a nonattainment new source review offset exchange.

Am I understanding you correctly that two separate facilities could not enter into an agreement that one will shutdown and the other will acquire the emission credits unless it is a replacement for the unit that was shut down?

Did I misunderstand that?

MR. ROMAINE: Yes.

MR. FORCADE: So it would be an exchangeable commodity without a replacement value?

MR. ROMAINE: No. The point is there are two points of arrangements. There is a distinction there. If the shutdown has already occurred before there was any arrangement or agreement with the individual proposing the new source and then there is that additional requirement that the new source be a replacement for the shutdown --

MR. FORCADE: I understand.

MR. ROMAINE: If, in fact, the agreement was

entered into prior to the shutdown, then, there would be, in fact, the ability to transfer that shutdown as an offset for the proposed project.

What that assures, and this is another step, is that before the shutdown has occurred, Mr. Forbes can be informed that this is not, in fact, a shutdown that can be relied upon for reasonable further progress, but, in fact, there has been an agreement with another new source that the intent is to use this shutdown as an offset and that the agency should not, in fact, rely upon it as part of its reasonable further progress or rate of progress plan demonstration.

MR. FORCADE: If I understand you correctly, then, an advance contractual arrangement to shut down a source does not depend on that being a replacement for the unit that was shut down?

MR. ROMAINE: That's correct.

MR. FORCADE: Okay. Thank you.

Under nonattainment new source review, is there a maximum time period which the agency will allow between the shutdown of the Facility Y and the start of operations and the start of operations of Facility X where there was advance agreement for

this?

MR. ROMAINE: Historically, we have tried to use the five-year contemporaneous time period as the period within which emission reductions should be used.

However, I'm not aware of any provision in the regulations that would restrict that. What really affects that is whatever case-by-case requirements were developed in the provision shutdown, what occurs in terms of the reasonable and further progress plan, and as I guess I also said, we have had no projects that involve LAER.

To date, we haven't had any projects that have come to fruition involving external offsets where one source provides the offset, another source takes that offset and actually builds something. So we don't have a precedent to reply upon.

MR. FORCADE: Could you tell me what kind of documentation must be provided to Mr. Forbes in advance to get his approval for not counting the facility shutdown in his database?

MR. ROMAINE: I think the key thing is that that source not simply withdraw their permit, that

the source, as part of their correspondence with the permit section, indicate that even though this permit is being withdrawn, this other agreement exists.

MR. FORCADE: Does the agency maintain a database or other listing of possible offset sources?

MR. ROMAINE: We do not maintain a specific database of possible offsetting sources. We have maintained our general inventory that certainly indicates the sources that are out there. We can make those databases available to people upon request.

The other source of information that we have about offsets is simply anecdotal information where a particular permit analyst becomes aware of things that may be occurring and upon discussion with an analyst, just generally inquire and also make that information available to assist a source in satisfying the offset requirement.

I think one of the things that the trading program does is to create infrastructure that would make it easier for sources to obtain offsets because there will, in fact, be a market

for ATUs and there will be a database.

So that is certainly an advantage for sources in the circumstance. The other thing that

the trading program does is it helps establish in much clearer terms what rights a source has in terms of ATUs and allowances which is something that I said is not very well-defined, for example, in the terms of length of duration.

Certainly, in the absence of that information, I think my general perspective is sources have been fairly -- well, I didn't really want to volunteer that they've had emission reductions because they're afraid that he had other interest in those remission reductions that are -- their purposes may not be the same as the source's in this respect.

MR. FORCADE: Okay. Continuing from the example in Question 1, from what type of facility may a facility purchase nonattainment new source review offsets? A., May you purchase nonattainment new source review offsets from an Illinois facility that is not subject to Title 5 of the Clean Air Act, but does have a federally enforceable state operating permit?

MR. ROMAINE: Certainly, there are circumstances where this could occur. The key point of an emission offset is that it has to be readily enforceable and permanent.

Certainly, a federally enforceable state operating permit would be a means to make an emission

reduction permit and, in fact, the reason that Illinois started a federally enforceable state operating permit was to make offsets enforceable.

It predated the Title 5 permit program and is something that now we have also relied possibly upon for the Title 5 permit.

MR. FORCADE: May Facility X purchase nonattainment new source review offsets from a source whose actual emissions are less than 50 percent of the major source thresholds and therefore, requires only an Illinois minor source air permit?

MR. ROMAINE: Yes and no. They could make that purchase, but then in terms of making that emission reduction enforceable, we would probably have to get that minor source covered by a federally enforceable state operating permit.

MR. FORCADE: Last, may they purchase offsets from a source such as a gas station so fall small it

does not need an air permit?

MR. ROMAINE: Theoretically, yes. I would wonder how again we would ever make this type of emission reduction permit enforceable. I would question as a practical matter whether they relied upon it as an offset.

MR. FORCADE: Okay. At this time, if it's possible, I would like to continue the nonattainment new source review and ERMS questions which are found

at Page 41 of our --

THE HEARING OFFICER: Before you go on, there is a Subpart D on Page 5. Do you want to finish that up?

MR. FORCADE: Oh, I'm sorry. May the facility purchase nonattainment new source review offsets from mobile sources such as those in the complete vehicle program under Part C of Title 3?

MR. ROMAINE: Theoretically, yes. As a practical matter, I don't see how they would work that out with the problem being under the complete vehicle programs, from my perspective, only accelerate and perhaps turn over vehicles of particular fleets.

You have to have a difficult problem

coming up with a particular emissions reduction that would, in fact, permit it enforceable. At some time the natural turn of vehicles probably catch up with you.

Gale, would you agree with me or have I mispoken.

MR. NEWTON: I agree with you unless you had an ongoing program where they bought X number of vehicles every year.

MS. McFAWN: Could you speak up?

THE HEARING OFFICER: Could you speak up, please?

MR. NEWTON: Oh, I agree.

MR. FORCADE: If I could, I would like to continue the new source review question section of our January 27th submittal, which begins on Page 41 near the bottom rather than breaking up the issue into two sections.

Consider the following scenario: Facility X obtains all available nonattainment new source review offsets by purchasing and shutting down facility-wide, which has past actual emission of 156 tons and an allowable of 234 and a baseline of 65. Facility Y shuts down on January 1, 2000.

Facility X and Y are both owned by the same corporation, Z. Under nonattainment new source review, Corporation Z shuts down Facility Y, how many nonattainment new source review offset credits may Facility X acquire, 156 tons or 234?

MS. SAWYER: Would you give us just a moment? We're a little lost.

MR. FORCADE: Sure.

MR. ROMAINE: The answer is none.

MR. FORCADE: Okay.

MR. ROMAINE: The rationale for that is this emission reduction or the shutdown would have occurred January 1, 2000. We would assume that the trading program would have been in operation for over a year by that point so that the trading program

would affect how this transaction might occur.

MR. FORCADE: As a follow-up, am I assuming correctly that you believe the board will adopt this by January 1, 1998, and that sometime prior to January 1, 2000, U.S. EPA would approve the conversion from nonattainment new source review under the existing program under Part 203 and the new program that would flow from the ERMS program?

MR. ROMAINE: Yes.

MR. FORCADE: So this would be handled all under the ERMS program, assuming U.S. EPA has approved that part of the Nonattainment New Source Review Program?

MR. ROMAINE: The question that you are raising in my mind is whether U.S. EPA, in fact, has to approve the ERMS program for this to become effective at the state level.

MR. FORCADE: No. Actually, the question that I'm asking is when you have an existing federally approved Part 203 Nonattainment New Source Review Program, which has historically operated on annual emissions.

If I'm correctly understanding the agency's proposal, they intend to replace this annual-to-annual accounting period with a seasonal-to-seasonal accounting period. I will turn it back to you as to whether or not that

change needs to be federally approved.

MR. ROMAINE: I think that calls for a legal conclusion, but from my engineering conclusion is if Facility X gets its construction permit from new project, that deals with the permitting of new project at Facility X.

MR. FORCADE: Okay. I believe, then, if the correct answer is no new source review offsets will be needed, that Question B would not be applicable?

THE HEARING OFFICER: Why don't you read in Question B?

MR. FORCADE: Question B says under the emissions reduction system, if Facility X is required to obtain ATUs in addition to nonattainment new source review offsets, and I believe if I understood Chris correctly, he said the number of nonattainment new source review credits would be zero because handled under the ERMS system at that point in time?

MR. ROMAINE: That's correct.

MR. FORCADE: Okay. So, then, again under Question C --

MR. ROMAINE: Oh, are you done with Question B?

MR. FORCADE: If there are no new source review offsets coming into play because the ERMS program has replaced it, then, you will simply be dealing with this as an ERMS source wishing to

construct under acquiring ATUs, is that correct?

MR. ROMAINE: Well, I guess the problem that I have with the example is I don't have any

construction project.

MR. FORCADE: Well, okay.

MR. ROMAINE: What we are talking about? This seems to be some sort of a transaction involving the transfer of ATUs from one facility to another facility, both owned by the same company, that would then affect their operation on a continuing under the trading program.

MR. FORCADE: Then, again, under Question C, because there is no nonattainment new source review offset credits being transferred, the question would not have meaning.

Question D, likewise, would have no meaning.

MS. McFAWN: I'm sorry. What was the answer to your initial question?

MR. FORCADE: All of the questions of this have been premised under the theory --

MS. McFAWN: But what did he answer in response?

MR. FORCADE: Oh, I'm sorry. I thought he shook his head yes.

MS. McFAWN: That doesn't go on the record.

Chris, do you want to respond?

THE HEARING OFFICER: Why don't you go back. Can you read back the question and the answer?

Are you going to withdraw C and D?

MR. FORCADE: I would like to withdraw B, C, and D under the agency's assertion that no nonattainment new source review offsets would be transferred post-2000 because the program would be controlled by the ERMS ATUs and in such circumstances, those questions have no relevance.

MS. SAWYER: I think there may be some clarification needed just exactly. . .

THE HEARING OFFICER: Mr. Romaine, let me ask this question because of your answer in Question A, does that make Questions B, C, and D not applicable?

MR. ROMAINE: It does make Questions B, C and D inapplicable. Questions E is not applicable for another reason in that I don't know where this first year of operation comes in.

THE HEARING OFFICER: We haven't gotten to Question E.

MR. ROMAINE: I need to know is this a continuation of previous questions?

MR. FORCADE: They were all premised under

the questions which start out there will be a construction project and we have simply moved it from the period of 1997 to 2000. I apologize if that wasn't clear.

The questions originally posed under the year 1997, if I'm correct in summarizing the agency, there was a nonattainment new source review offset requirement as a component to the answers.

Then, we moved to the year 2000. The question was posed, and the response, if I'm correctly characterizing it from the agency, was that there was no nonattainment new source review component to construction and transfers that take place in the year 2000 because it will be handled by the ERMS ATU program.

I'm just wishing to clarify that that's true because that would make Questions B, C, and D irrelevant.

MS. SAWYER: I think our confusion with this question was the way it's worded, it doesn't really pose a pending construction project in the first place.

MS. McFAWN: That assumption was the basis of your answers, Mr. Romaine, up to this point?

MR. ROMAINE: Yes.

MS. McFAWN: Should we start again to get that assumption in?

MR. FORCADE: Moving back to Page 41, Question 1, with Facility X shutting down and a contemporaneous application to the agency for a construction and the desire to secure appropriate agency permits and if necessary, appropriate ERMS credits to allow operation of a new facility, I'm posing now Question A under nonattainment new source review if it is applicable if Corporation Z shuts down Facility Y, how many nonattainment new source review credits may it receive for the new construction and would it be 156, 234, or some other number?

MR. ROMAINE: The period of time that's being described -- when it is Facility X --

MR. FORCADE: This would be June 1, 2000. I apologize in that sentence was left out.

MR. ROMAINE: We would be dealing with a shutdown of a facility, I assume that the facility was shut down and the permit was withdrawn before this facility -- this transaction was proposed.

MR. FORCADE: This was contemporaneous. This

is shutting down one facility to start operations at another location.

MR. ROMAINE: Well, the trading program would

be in place at that point and a transfer between Facility X and Facility X would be in terms of ATU.

You have described a baseline emissions of Facility Y of 65 tons per season. That, of course, isn't necessarily its allotment.

If its allotment were reduced by 12 percent as generally you have assumed, there would only be, in fact, 57.2 tons per year of emissions -- I mean -- of allotment trading units created or available for Facility Y.

The further question that has to be asked is whether this is considered a source shutdown. So we would take 20 percent of those emission decreases and transfer them over to the ACMA account or if, in fact, this arrangement where Facility Y will satisfy the offset requirement for the new operation of Facility X which occurs over time so that there is not a final shutdown of Facility Y until the new emission unit becomes operational.

You do have to make the adjustment of

the emissions to account for the allotment process, but then there is a further adjustment that you probably have to work on a case-by-case basis to see how the shutdown provision that requires 20 percent of source shutdowns when the permit is withdrawn to be transferred over the ACMA.

So in terms of the question, the correct answer is certainly neither, 156 or 234. There is certainly no offset credits transferred. There would be a transfer of ATUs, a transfer of ATUs 57.2 tons worth and conceivably 80 percent of that.

MR. FORCADE: I think we have answered all of the questions there if I'm correct that the operating facility would not need to purchase any offsets. You said no offsets would be transferred, but new construction would not need to purchase -- would not need to acquire nonattainment new source review offsets and instead it would require ATUs, is that correct?

MR. ROMAINE: No. We've asked about the transfer. Now, the question is what sort of ATUs would be required for the new emission units.

You proposed that the new emission

units would have actual seasonal emissions of ten tons per month for five seasons. That would be 50 tons of actual emissions. So they would have to provide 1.3 ATUs for each 200 pounds of those emissions.

MR. FORCADE: I appreciate that. I'm not trying to belabor the point here.

My question was a conclusion of the nonattainment new source review offset program and

its replacement by ERMS and I'm asking would they have to acquire any nonattainment new source review offsets. I'm not asking about the ATUs. I'm asking about nonattainment new source review offsets under Part 203.

MR. ROMAINE: Well, the offset provision of new source review as still they would have to be resolved in terms of allowance trading units.

MS. McFAWN: And that's why it's a 1.3 ratio?

MR. ROMAINE: Yes. Once the trading program is in place, the offset requirement would still apply with further refinement to how that offset requirement is being implemented that is now being put into place through the trading program. So you would have a combination of two programs in place.

MR. FORCADE: One more time, if they acquire the appropriate of ATUs, whatever that number is, they would not be required to go out and purchase additional nonattainment new source review offsets and the ATUs would satisfy the requirement?

MR. ROMAINE: You have combined two things. I think a simple answer would be yes, but the point is they would never have to buy offset credits.

What they might have to buy is if they don't have enough ATUs to satisfy their requirement for the new emissions.

MR. FORCADE: But they would not have to

purchase both?

MR. ROMAINE: That's right.

MR. FORCADE: Good. Thank you. I appreciate that. Okay. I believe that concludes Question 1.

I'm going on now to Question 2. If a source which begins operation of a major modification holds ATUs in compliance with 205.150(c)(2)(A), will a source be required under nonattainment new source review to obtain other emissions offsets during the nonseasonal period?

If I'm correctly understanding your previous answer, the answer is no, they will not?

MR. ROMAINE: That's correct.

MR. FORCADE: I believe you just answered three. I believe you have answered four. I believe you have answered -- oh, actually, at this point that concludes the nonattainment new source review questions.

Would it be appropriate to --

THE HEARING OFFICER: I think we need to end it here today. I think we are all getting pretty tired. I think Lori is getting pretty tired there too.

Let me just first state that I think we want -- I think Ms. Rosen has some comments she wants to make on the record.

MS. ROSEN: Yes.

THE HEARING OFFICER: Do you want to do that real quick or as quick as it can be?

MS. ROSEN: Sure. On behalf of ERG, I would like to make a comment regarding the proposed use of the video conference.

Most importantly, ERG does not oppose the use of the new technology. We support the use of it, but we believe that its use could raise a number of issues and we are just putting the issue out here

for maybe some discussion to know whether the board has considered all of these different issues and given thought as to how they might be resolved.

We particularly have a concern regarding whether the use of the video conference will diminish the quality of the evidence and the debate and the ability to cross-examine the witness which could impact the record as a whole.

To that end, we are concerned with if the quality is diminished, has the board determined what weight they want to give the evidence, that is, that results from the video conference.

Our suggestion is that prior to the weight determination being decided that the participants to the proceeding have an opportunity to comment on whether the process worked and whether what was elicited was productive and everybody got their questions answered given the format.

To that end, if the process doesn't work, will the board give the agency an opportunity to have the witness come in person so that it can aid in the creation of a complete record.

Our concern is also premised on the potential precedent that it could set if this is just

allowed given -- we are trying to accommodate some unusual circumstances, but if it's allowed this time, in the future, will our participants in rulemakings be able to take advantage of it when their schedules can't work with the schedule established by the board? Will they be able to speak from other venues?

That's basically our comment. We hope that sometime prior to the teleconference, we will have a discussion that further flushes out all of these issues and impacts.

THE HEARING OFFICER: Thank you. Are there any other comments along that same vein?

In the back?

MR. TREPANIER: I have some concern that the agency has selected someone that they know who is going to be unavailable because the schedule of the legislature in Wyoming is published and then this is someone who is reviewing the program and didn't independently analyze this. So I do have concerns that somebody with these restrictions was selected by the agency to move forward with this testimony.

MS. SAWYER: Could I just respond to that briefly?

First of all, Mr. Case was selected for

exactly the opposite reason because he did analyze the program. He was involved in the design process and he further analyzed the economic impact. The reason that he was the best person is because he was involved in the earlier stages of designing the program. As to your accusation that that was our intent, you know, I think we would deny that.

MS. McFAWN: I don't have any of Mr. Case's prefiled testimony before me right now, but are his qualifications attached to that by any chance? I don't have it in front of me.

MS. SAWYER: No. Sarah -- I don't have it in front of me.

MS. McFAWN: Okay. Well, then, does anyone on the panel know other than what Mrs. Sawyer just told us why he became involved in the design team? His specialties perhaps other than he is a legislator?

MR. NEWTON: He is a Ph.D. economist.

MS. McFAWN: He is a Ph.D. economist, did you say?

MR. NEWTON: Yes. And I think he teaches at the University of Wyoming.

MR. MATHUR: Are we off the record?

THE HEARING OFFICER: No. We're on the record.

MR. MATHUR: I was going to . . .

MS. McFAWN: Wait until we're off the record to make your comment.

MR. MATHUR: No. I can make it on the record about Mr. Cale Case. He is a Ph.D. economist. He is a professor at Wyoming State. He is a state legislator, which we shouldn't hold that against him. He was on the design team as an economic consultant and as a part of the Palmer Bellevue Company.

MS. McFAWN: Of what company?

MR. MATHUR: Of the Palmer Bellevue Company. He was instrumental in helping the agency over the past several years in the design effort.

MS. McFAWN: Okay.

THE HEARING OFFICER: Is there any way the agency can find out from Dr. Case the Wyoming's legislative session schedule?

MS. SAWYER: Do we know it now, Sarah?

MS. DUNHAM: It ends on March 5th.

THE HEARING OFFICER: I believe there is usually a spring break or at least there is one in Illinois.

If you could actually provide that somehow in writing and let us know when that break is just in the offhand chance we do decide to actually want him here to testify.

MS. SAWYER: You want it in writing?

THE HEARING OFFICER: Just let us -- I would like to know a little bit more than just off the top of our heads if it definitely is March 5th.

MS. SAWYER: It is. It definitely is.

THE HEARING OFFICER: Okay.

MS. ROSEN: Also, when you consider the timing that he's going to -- if the teleconference comes about, he is scheduled very late in the day. Once his formal testimony gets presented and then the panel and he begin to answer questions, are we realistically going to be able to conclude the extensive economic questioning that I have envisioned on that day and what will we have to do to accommodate the end of his testimony? That's one more issue.

THE HEARING OFFICER: That, quite honestly, has been a concern of mine from the beginning, but let's just say at this point that everything has been taken under advisement of the board. I don't know if

we will have the transcript done. I don't think we will, but surely board members present and myself will remember what the comments were and we will kind of discuss that.

MS. McFAWN: Those will welcome, your concerns. The ones that Mr. Feinen has mentioned has been a concern of the board. It has been discussed as has several of the other concerns raised. We still have to work out the details of the teleconferencing, but as Mr. Feinen says, we have it under advisement. Keep in mind, too, we might -- I think your comments were really good. I don't know if we can answer those issues before we even try it.

MR. ROSEN: We understand.

MS. SAWYER: We understand that if we don't get through the questions, that we have to go on to get through the questions on the economic stuff.

MR. TREPANIER: I saw that when I read Mr. Case's prefiled testimony, it made no indication that he had been a member of the design team, only that he had reviewed the agency's work. That's why I brought up that concern. I didn't want it to be treated as an accusation.

THE HEARING OFFICER: Okay. Let me discuss

now at this point what's planned for next week on the record. Although we previously discussed this, I'll just put it on the record.

We're going to continue this matter until February 10th, Monday, at 9:00 o'clock. Not 10:00 o'clock, but 9:00 o'clock. We are going to set out the morning with the testimony from the design team; Mr. Compton, Mr. Ziesmann and Mr. Jerik. The questioning of the design team will be turned back to the panel for questioning.

Then, that will probably round out the 10th. On February 11th, once again, we'll start out at 9:00 o'clock in this room. We'll start out the morning with the panel and questioning. We will continue to the panel until, I will say, roughly 2:30 or 2:00 o'clock.

At that time, we will hopefully have the agency present the testimony of Sarah Dunham which will carry us into the 3:15 time for the presentation of Dr. Case's testimony and then we will start questioning as quickly as possible after that.

Are there any questions? Are there any other matters? All right. We will then continue this matter on the 10th.

(Whereupon, no further proceedings were had in the above-entitled cause, to be recommenced on February 10, 1997, at 9:00 o'clock a.m.)

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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 25th day of February, A.D., 1997.

_____
Lori Ann Asauskas, CSR, RPR
Notary Public, Cook County, IL
Illinois License No. 084-002890

SUBSCRIBED AND SWORN
before me this 25th
day of February, 1997.

_____
Notary Public