ORIGINAL

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)
PROPOSED SITE SPECIFIC REGULATION	)
APPLICABLE TO AMEREN ENERGY	) R04-11
GENERATING COMPANY, ELGIN, ILLINOIS	)
AMENDING 35 ILL. ADMIN CODE 901	)

The following is a transcript had in the above-entitled cause before HEARING OFFICER JOHN KNITTLE, taken stenographically before TERRY A. STRONER, CSR, a notary public within and for the County of Will and State of Illinois, at 100 West Randolph Street, Chicago, Illinois, on the 22nd day of January, A.D., 2004, scheduled to commence at 1:00 o'clock p.m., commencing at 1:25 o'clock p.m.

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

ILLINOIS POLLUTION CONTROL BOARD,
2125 South First Street
Champaign, Illinois 61820
(217) 278-3111
BY: MR. JOHN KNITTLE, HEARING OFFICER

OFFICE OF THE ATTORNEY GENERAL,
Environmental Bureau
188 West Randolph Street
20th Floor
Chicago, Illinois 60601
(312) 814-6986
BY: MR. JOEL J. STERNSTEIN

Appeared on behalf of the Attorney General,

SCHIFF HARDIN, LLP.,
6600 Sears Tower
Chicago, Illinois 60606
(312) 258-5519
BY: MS. MARILI McFAWN and MR. JOSHUA R. MORE

ALSO PRESENT:
Board Member Alisa Liu
Board Member Thomas E. Johnson
Board Member Anand Rao
Board Member Andrea Moore
David Parzych
Gregory Zak
Richard Smith
Howard Chinn

HEARING OFFICER KNITTLE: Hi, my name is John Knittle. I am an attorney assistant with the Illinois Pollution Control Board. In this matter I'm acting as a hearing officer for the Illinois Pollution Control Board in the matter of proposed specific regulation applicable to Ameren Energy Generating Company, Elgin, Illinois amending 35 Illinois administrative code 901. Next to me on my left is Board Member Tom Johnson. We also have Anand Rao and Alisa Liu and Lynn Delaney with the Illinois Pollution Board present with us today.

I have a little background on the proposal. I know we're all familiar with that, but for the record, I want to just give a little summary.

First of all, Ameren owns a power generating facility in Elgin and that consists of four simple cycle combustion turbines. The facility is located at 1559 Gifford Road, that's Elgin, in Cook County. We had some

confusion here I'm going to want to address. Is any part of that facility in Lake County?

MS. McFAWN: Lake?

HEARING OFFICER KNITTLE: DuPage?

MS. McFAWN: DuPage, no.

HEARING OFFICER KNITTLE: It's all located in Cook County?

MS. McFAWN: That's right.

HEARING OFFICER KNITTLE: All located in Cook County. The facility became operational in November 2002. It's a peaking facility intended to start up rapidly to generate power when critically needed.

The land immediately to the west of the facility is vacant and until very recently was located in unincorporated Cook County and zoned industrial. This changed on June 3rd, 2003 when the Village of Bartlett annexed and rezoned this land for residential use at the request of Realen Homes and they are a residential development corporation.

Although Ameren feels the facility is in compliance with the applicable noise regulations found at 35 Illinois administrative code part 901, it has concluded that the facility will not be able to meet the Class A noise limitation at 901.102, that will be applicable if the property is used residentially. Accordingly, Ameren is seeking a site-specific rule that establishes noise emission limitations for the facility that are applicable to Class A and Class B receiving lands.

This has been properly noticed according to Board regulations and this hearing is also noticed for the purpose of an economic impact study hearing pursuant to Section 27(b) of the Act. That section requires the Board to request the Department of Commerce and Economic Opportunity, formerly the Department of Commerce and Community Affairs to conduct a study of the economic impact of the proposed rules.

That department has 30 to 40 days after the study to produce the impact of the proposed rules. The Board must make this study or any explanation for not doing the study available to the public at least 20 days before a public hearing on the economic impact.

We, the Board, requested by a letter dated November 19, 2003 that the Department of Commerce and Economic Opportunity to conduct an economic impact study. No response was filed to that letter. Pursuant to an earlier letter that was dated April 17, 2003, DCEO stated that they did not have the funds to perform any ECIS studies and offered the April 17, 2003 letter as it's formal response to all current and future Board rulemakings. Both this letter and the Board's letter have been able in the Board's offices in this file for viewing by the public from November 19th onward so this hearing is being held not only to gather information, but also to fulfill

the requirements of the ECIS hearing as well. So I've provided an explanation as to why the Department of Commerce and Economic Opportunity is not doing a hearing on this matter, do we have any comments on that or that explanation or the requirements of Section 27(b). I don't see anybody offering comments, so we'll move on to the next step and I should note that we have sign-up sheets for the notice and service list out front there. If there were any members of the public here present, we'd direct them that they could sign up to be included on the notice and service list. The notice list is reserved for those people only wanting Board orders and opinions and hearing officer orders. The service list gives you a more complete idea of what's going on in this case and you receive those documents plus other filings such as public comments, but just for the record there are no members of the public here present today. If, in fact, they

were here, again, we would allow them to sign up and present testimony. They would have to sign up making themselves known to us with their name and address and time permitting, after the parties' testimony, we would receive the testimony of those signed up, of course there's nobody here, so that's really not applicable, but if they were, they would be able to testify.

The public comment period will be set after the hearing and all those that want to provide testimony and aren't able to here today will have that -- take advantage of it as would the parties as they so desire.

This hearing is going to be governed by Part 102 of the Board's rules. All information relevant and not repetitious or privileged will be admitted and all witnesses will be sworn and subject to cross-examination. Once the testimony is complete, the parties will have the opportunity to provide any

closing statements they wish to make. Anyone may ask a question of any witness, just make sure that we don't talk over each other for the court reporter's benefit. So if anybody not talking at a moment has something to say, just let me know and we'll get to you in a minute. We want to make sure we have a clear record and the court reporter can't get it down if everybody is talking at the same time.

Finally, we want to note that the questions asked by anyone with the Board, the tech unit or Board Member Johnson or myself are intended only to help build a record and are not an expression of any preconceived notions that we may have relating to this specific rule. We are here just to make as clear a record as possible.

So that all being said, I want to again introduce Board Member Johnson and ask him if he has any comments at this time.

MR. JOHNSON: I think I've already introduced myself to all of you. I want to welcome you and assure you that the Board recognizes the importance of this rulemaking and additionally, assure you we'll give the matter the attention it deserves and attempt to issue a decision in a timely fashion, so thanks and I think with that I'll turn this over to our hearing officer for introduction of the parties.

HEARING OFFICER KNITTLE: Thank you Member Johnson. Thank you, Don Brown.

MR. BROWN: You're welcome.

HEARING OFFICER KNITTLE: Also a Board employee who has provided us with some pleadings that we were missing earlier.

If we could have the parties introduce themselves, starting with Ameren.

MS. McFAWN: I'd be happy to. If it's all right with you, I'll just sit

through the course of this proceeding.

Let me introduce myself, I'm Marili McFawn. I'm with Schiff Hardin and I represent Ameren today. We're pleased to be here. We are very thankful that you have granted our motion for expedited consideration and am most pleased that this is still proceeding on an expeditious fashion.

With me today and to my right is Richard Smith. He's the manager of generation services for Ameren Energy Generating Company. They are the owner of the power plant that is the subject of this site specific rulemaking. Also, with me is -- we have two consultants, noise consultants, Dave Parzych is seated to the right of Mr. Smith and he is the president of Power Acoustics, Incorporated and then next to him is Gregory Zak who is the owner of Noise Solutions by Greg Zak. I would mention that many of you are familiar with Mr. Zak, he has been -- made many

appearances before the Pollution Control Board I'm sure his testimony today will be of equal interest as in those preceding -- the preceding times he has testified before you. Also with me is Joshua More. He is with Schiff Hardin and is here to assist the witnesses as well as myself, so that's who we are.

HEARING OFFICER KNITTLE: Thank you very much, Ms. McFawn.

The Attorney General's office.

MR. STERNSTEIN: Sure. Thanks. I'd just like to express our appreciation to the Board, hearing officer, Board Member Johnson and the technical until for allowing us to testify today.

My name is Joel Sternstein. I'm an assistant attorney general with the state of Illinois and I will be presenting our one and only witness, Howard Chin, who is a professional engineer with our office and has worked in our office for 31 years and is very familiar with Illinois' noise laws and

regulations.

HEARING OFFICER KNITTLE: Thank you, Mr. Sternstein. We can begin with the case in chief.

MS. McFAWN: Yes, certainly. Before we -- initially I'd like to introduce the exhibits into the record and -- but before I do, let me just explain that a number of those exhibits are already -- have already been presented to the Board for their consideration and to the Attorney General's Office and others on the service list. In fact, many of those pleadings prompted questions and comments by the Attorney General's office and by the Board's technical unit, which we are here today to respond to and hopefully explain further our petition and answer any further questions the Board may have.

I would hope through the course of this hearing, if it's all right with you, John, I'll just run through and tell you what we're -- where we're going with

this. We will provide summarized testimony as you requested and from there we -- that incorporates a slide show that we have of the area where the power plant is located and then we have some additional testimony to answer the questions posed by the Board's technical unit or the Board in general and also some issues raised by the Attorney General's Office in its prefiled testimony. So with that, I would like to introduce the exhibits at the outset so we have them handy to use through the course of the hearing. Josh More will assist me in that. We have a copy for the Attorney General's office as well as the Board -- we have two copies for the Board, one for the clerk's office and one for Board Member Johnson and your office and -- actually, if you'd like, we have a fourth copy that we can provide to the technical unit, is that right?

MR. MORE: A copy to the court reporter -- we need one for the court

reporter.

MS. McFAWN: Josh just corrected me. I need a copy for the court reporter.

MR. MORE: Actually, no -- we can do two, that's fine.

MS. McFAWN: Are you sure?

MR. MORE: I can give them two and one to the AG and we will have one. That's fine.

MR. MORE: We'll be fine.

MS. McFAWN: All right. So with that, Josh, if you want to -- do you want me to read the title or should you?

MR. MORE: It doesn't matter, whatever is easiest for you.

MS. McFAWN: Why don't you go ahead and read the title?

MR. MORE: Okay. The first exhibit will be the general existing land use map, attachment A1 of the petition.

HEARING OFFICER KNITTLE: Any objection from the Attorney General's Office?

MS. McFAWN: Exhibit No. 2 is a detailed existing land use map, which is attachment A2 of the petition.

MR. STERNSTEIN: No objection and if you want to just wait until the end?

HEARING OFFICER KNITTLE: Do you want to do it that way?

MR. STERNSTEIN: Yeah. We can just go through them all as Marili is passing them out and then if we have any objections, we'll let you know.

HEARING OFFICER KNITTLE: Is that all right?

MS. McFAWN: That's fine.

Exhibit No. 3 is a diagram of Elgin facility layout, which was attachment B to our petition. Exhibit 4 is a simple cycle combustion turbine. It's a diagram. It was attachment C to our petition.

HEARING OFFICER KNITTLE: Ms. McFawn?

MS. McFAWN: Yes.

HEARING OFFICER KNITTLE: May I interrupt you for a second?

MS. McFAWN: Certainly.

HEARING OFFICER KNITTLE: We have coming to join us here, Andrea Moore, she's a Board member with the Pollution Control Board. I just want to make sure it's on the record that she's here. You can proceed. Sorry.

MS. McFAWN: That's fine. Welcome, Ms. Moore.

Exhibit 5 is a diagram of Elgin facility noise control devices. Exhibit 6, estimated costs of noise abatement treatments, which was attachment E of the petition. Exhibit 7, the map of ambient sound measurement locations, which was attachment F of the petition. Exhibit 8, the prefiled testimony of Richard C. Smith. Exhibit 9, David Parzych's prefiled testimony. Exhibit 10, the prefiled testimony of Greg Zak. Exhibit 11, the analysis and results of acoustical measurements taken near the

Ameren Elgin facility on June 20, 2003. Exhibit 12, a report entitled acoustical evaluation and ambient sound survey of Ameren simple cycle power facility proposed to be built in Elgin, Illinois. That report is dated November 30th, 2000. Exhibit 13, a report entitled Elgin plant estimates of Realen property dated July 11th, 2003. Exhibit 14, a report entitled Noise Solutions by Greg Zak. I should correct that. It's a report from our consultant, Noise Solutions by Greg Zak. This would be a report for the noise measurements taken September of 2003. Exhibit 15, these are the PAI, Power Acoustics, Incorporated sound power and sound pressure levels tables, the Ameren Elgin units. Exhibits 15, 16, 17, 18 and 19 will be provided in hard copies to you and we also have an electronic copy if, in fact, we use that today. Exhibit 16 is the chart of Ameren noise limitations that are proposed. Exhibit 17 are the measured and extrapolated

sound pressure levels for Ameren Elgin Units at the L-R location of Gifford Road across from unit four of the Elgin facility. Exhibit 18 is a comparison of current noise limits with the Ameren Elgin facility site specific noise emission limitations and Exhibit 19 is the business location map that we prepared to go along with the slide show presentation we intend to provide you. This is for reference only. It is not to scale. It is simply to acclimate you to the surroundings of the businesses surrounding the Ameren Elgin facility.

That concludes the exhibits that were prepared to ask that the Board accept at this time.

HEARING OFFICER KNITTLE: Thank you, Ms. McFawn. Mr. Sternstein, have you had the opportunity to go over the exhibits that have been offered?

MR. STERNSTEIN: Yes, I did.

MS. McFAWN: I would note that but for exhibit --

MR. STERNSTEIN: No objections. I'm sorry.

MS. McFAWN: That's okay.

MR. STERNSTEIN: No objection to the exhibits.

HEARING OFFICER KNITTLE: Did you have something you wanted to note?

MS. McFAWN: I was just going to note for Mr. Sternstein's information that only the Exhibit 19 is one that he hasn't seen before.

HEARING OFFICER KNITTLE: In light of the fact that we have no objections, we're going to admit all of those exhibits.

MS. McFAWN: Thank you. Then I'd like to begin with the testimony by Richard Smith. As I explained before, Member Moore, Mr. Smith is the manager of generation services at Ameren Energy Generating Company and directly responsible for the Ameren Elgin Energy Center and we will be testifying today using a summary of his testimony, his

prefiled testimony has already been accepted into the record.

HEARING OFFICER KNITTLE: Ms. McFawn, before we get started, can we have the court reporter swear him in?

MS. McFAWN: Certainly.

(Whereupon, Mr. Smith was sworn in.)

MR. SMITH: Good afternoon. I am Richard C. Smith and am currently manager of generation services at Ameren Energy Generating Company. I am pleased to be here today, especially since I have been involved in the Elgin Energy Center since the time we started development efforts in January of 2000. I am currently responsible in my current position for project management, engineering, outage planning, safety, training, laboratory services and operations and maintenance of AEG's combustion turbine fleet as well as two of our cogeneration facilities. Before that, I was responsible for leading the development of the Elgin Energy Center

project and was responsible for construction and commissioning of the facility. In my current position, I do have line responsibility for operations and maintenance of the facility.

Prior to purchasing the site in 2001 we conducted an extensive public involvement program. Lou Williams & Associates, a Chicago public relations firm, was retained to conduct a survey of local community. This survey concluded the public would accept a new peaker plant and would not view the project negatively. The city of Elgin strongly embraced Ameren's desire to inform the public of our intentions through the public involvement program. We conducted three public workshops and I should mention that other sites we've developed in Illinois we've only held one workshop. We conducted mass mailings, we held meetings with local business owners, the local chamber, neighborhood groups and we published information in local media,

including newspapers and radio.

Our official ground breaking ceremony was open to the public. We also informed public officials and elected representatives of our intentions before the fact. We participated in public meetings and official hearings related to the Elgin zoning activities. Board approval is required for the intended use of our land use for power generation. We participated in city council meetings and approvals by ordinance, the Enterprise Zone extensions and the IEPA construction air permit. All these proceedings were conducted in an open and up-front manner and today Ameren enjoys a reputation as a company with integrity. Not only related to Elgin, but this reputation extends to other communities where we've developed peakers such as Pickneyville, Illinois; Gibson City, Illinois and Columbia, Missouri.

So we are here today because we found ourselves at a fork in the road.

We could have laid low, we could have taken a wait and see approach to see if we received any complaints and then deal with the issues at that time. Instead, we decided to abide by the spirit of the Board's noise rules and seek relief from the numerical limits being imposed by unexpected residential development.

I'd like to refer you to attachment A1 of the petition for reference. Our site is located at the southeast area within the Elgin city limits depicted by the yellow area right there where Josh is pointed, which is an existing -- or was an existing industrial park before we arrived there surrounded by heavy industrial activities and gravel mining activities and so forth and we'll talk more about that a little later.

In my prefiled testimony, I explained how the equipment at the facility works to produce power as well as how the noise abatement systems work.

I also explained that when the facility was originally designed and constructed, it was done with the assistance of Mr. David Parzych of Power Acoustics and the manufacturer, Siemens Westinghouse, in an effort to comply with the Board's general nose emission rules that were then applicable at the facility. As Power Acoustic's recent noise measurement this past summer demonstrated, the facility did meet that goal. The facility meets the general noise emission limitations at the existing residential properties at the time.

In this summary I will explain again briefly the noise abatement equipment at the facility and address the technical feasibility and economic reasonableness of each of the various additional noise abatement methods that we did consider as part of the rulemaking as possible approaches for further reducing noise from the levels achieved in the plant's original design and

construction.

I'd like to refer you now to attachment C of the petition and we'd just like to point out again the basic flow path and where the sound emissions are heard.

At the top of the diagram in the center is a device called the inlet filter. Ambient air is taken into the turbine through the inlet filter, then passes through the inlet silencer and enters the inlet manifold, which then proceeds into the compressor section. From there, it proceeds to the combustor section and natural gas is burned with the air, which then expands through the turbine turning a shaft, which then turns the generator and the generator produces electricity. The exhaust gases flow to the right in the diagram through the exhaust silencer and then through the stack which included additional silencing equipment.

MS. McFAWN: I would just

mention for the record that that attachment C has been accepted in the record as Exhibit 4.

MR. SMITH: Thank you. Then I'd like to call your attention to attachment D of the petition.

MS. McFAWN: This would be Exhibit 5 as entered into the record.

MR. SMITH: This diagram basically shows where we invested money and resources to control noise. Again, we have the inlet silencers, we have the outlet silencers, both in the horizontal exhaust section and in the vertical stack as well as an additional add-on noise enclosure.

At the Elgin facility, the air intake for each turbine is enclosed and the intake is equipped with inlet silencer baffles. This is combined with extensive duct structural stiffening and lagging as secondary noise attenuation to further reduce sound radiating from the air intake system. Since submitting our

prefiled testimony in this matter, we have done some additional investigation about the extent of noise control provided as part of that inlet silencer. We found that the silencers are indeed 12 feet long as opposed to eight feet. For sites where noise abatement is needed, eight feet is the industry standard for inlet silencers. We purchased and installed the upgraded 12-foot version and in so doing believe that we have maximized the sound abatement provided by inlet silencers. We also believe that the lagging and duct structural stiffening is of a quality to maximize noise reduction.

The facility's exhaust outlet is equipped with state of the art noise abatement equipment. The silencer panels were designed specifically for this facility to attenuate the low frequency of 31.5 Hertz and 63 Hertz octave bands while also providing substantial mid and high frequency noise attenuation. The

silencer panels are extra thick and longer than those used at comparable facilities. In fact, the specific horizontal section of silencer panels is approximately 35 feet in length. A three foot thick foundation was used to accommodate the massive exhaust silencer. Downstream of the exhaust silencers are traditional 50 foot high vertical exhaust stacks. The stacks were also used to provide an additional 15 feet of silencers. Finally, to keep sound from radiating from the exhaust duct surfaces, an extra secondary enclosure system was provided, which is acoustically insulated and constructed with one-quarter inch thick or more steel plate.

The noise abatement equipment described above and others described in my prefiled testimony were chosen and installed based on the design evaluation performed by Power Acoustics, Incorporated and Siemens Westinghouse during the early stages of the project.

Those evaluations and the study that Power Acoustics conducted for Ameren this summer demonstrate that the facility complies with the Board's noise emission standards that are currently applicable to the facility prior to residential construction. The cost of the noise abatement equipment for all four units, a good deal of which was specially designed for the Elgin facility as opposed to just buying standard equipment from the manufacturer was estimated to be approximately 11,$650,000.

Power Acoustics' more recent study done this past summer indicates that the facility will not be able to comply with the Board's general noise emission limitations for noise from Class C, industrial property to Class A, residential property if the Realen property is developed as residential. This recent study was commissioned when Ameren learned that the property immediately west of the facility might be

used for residences. As part of Ameren's site specific rulemaking petition, we investigated the technical feasibility and economic reasonableness of additional noise abatement measures, seven in all. The cost estimates can be found in Exhibit E of the petition.

MS. McFAWN: And that has been accepted into evidence as Exhibit 6 in this proceeding.

MR. SMITH: We are projecting Exhibit E for reference purposes in this proceeding, but before we address additional questions on specific alternatives, I would like to again explain that the expected accuracies of these cost estimates is in the range of minus 25 percent to plus 75 percent. In other words, we would expect real costs to be within the minus 25 to plus 75 percent range, around these numbers. This is because the noise abatement measures examined are unproven and would require extensive research, design or

redesigning. Note, also, please that for the most part, these cost estimates do no include the cost for removing existing equipment, building new foundations if necessary or cost of downtime at the facility during the removal, reconstruction and installation.

Briefly, I will address each of the noise abatement methods that we considered. Mr. Parzych will also address these issues today. As for the three methods for further abating low frequency noise, we believe that the state of art noise abatement equipment designed and installed is the optimum noise reduction as technically possible and the methods described are experimental and are technically and economically unreasonable.

Referring to attachment E, we'll proceed more or less from left to right. Installing additional exhaust silencers was estimated to cost about six million dollar, but the estimate did not include

the cost of moving the existing stack. This would have to be done because there is no more room for a silencer in the horizontal section. Also, we have to ensure that a relocated vertical stack would not impact air emissions and the modeling. This would require re-modeling and an air permit revision. Additionally, any deviation from the existing facility like this one would require local government approval, specifically city council approval.

A new, redesigned stack would be experimental. We estimated this cost to be 18 million dollars. Further, we do not know if this would be a viable technical option. As is the case with a relocated vertical stack, we would have to ensure that a new stack would also satisfy air permit requirements. Both types of stacks would require and be subject to the Village of Elgin's approval.

An active noise control system

was estimated to cost roughly six million dollars, but has never been used by the power industry. Therefore, it is completely experimental and not technically feasible. Thus, the estimated cost is a very rough cost. The cost would likely to be much greater if pursued, with no guarantee of success.

As for adding controls at the inlet, we examined additional inlet silencers, a secondary inlet ducting enclosure and secondary generator enclosure. The secondary enclosures for the inlet ducting and the generator were both estimated at 1.2 million dollars. A secondary enclosure for the inlet ducting would not ensure compliance with the Board's noise emission limitations. I should mention that all enclosures existing at the site today are functional mechanical systems providing specific duties such as ventilation, temperature control and equipment protection. As for the secondary enclosure for the

generator, such an approach would be unique to the industry and at a minimum would require extra engineering to avoid adverse operational impacts upon the existing generator enclosures.

Lastly, a barrier wall is the second most costly measure at 3.6 million. Such a wall would have to be high enough to block the sight line and still would not abate low frequency noise nor would it abate noise from the stacks.

While additional inlet silencers are estimated to cost $600,000, we already have 12 feet of silencers and this would be the second column from the right on the attachment. Anymore than 12 feet would not bring significant reductions that will allow the facility to meet the Board's noise limits at the 1,000 to 8,000 Hertz octave bands. Therefore, this measure would have little positive affect on the overall sound emissions from the facility. Furthermore, this type of abatement

measure would degrade unit performance by increased pressure drop through the inlets and thereby negatively impacting the economic value of our facility. This is intended in part to be the answer -- or part of an answer to one of the questions from the Board we received prior to this hearing.

To conclude, I would like to share the slide show with you that contains pictures of the area in and around the Elgin Energy Center. We believe that these photographs will illustrate that this area is heavily industrial. The background noise described by our experts at present levels are at least as significant and probably more so than that as associated with the Elgin Energy Center.

HEARING OFFICER KNITTLE: Can I interrupt?

MR. SMITH: Yes.

HEARING OFFICER KNITTLE: Ms. McFawn, these pictures that we're going to be

seeing here, are they going to be part of the CD that you're going to submit as an exhibit later on?

MS. McFAWN: Yes.

MR. MORE: Would it be easier if I rotated the screen a little bit?

HEARING OFFICER KNITTLE: No, no, that's fine, but is there going to be any way we're going to be able to identify pictures he's talking about at later point in time from the CD?

MS. McFAWN: We can provide you --

HEARING OFFICER KNITTLE: In case a Board member wants to relate it back to the transcript, I want to make sure they're able to do that.

MR. MORE: They should be in the same order.

MS. McFAWN: Yeah. They should be in the order that Mr. Smith will go through them. We can make an attempt to make numerical notations as he goes through.

HEARING OFFICER KNITTLE: If you can identify them as best as you're able, that

will help later on when we go through the record and make sure to identify the pictures that he's talking about.

MS. McFAWN: Okay.

MR. SMITH: Let's proceed then to the slide show and you may want to refer to attachment A1 from the petition as we go through the slides and the business location map that was handed out earlier today.

MS. McFAWN: That would be Exhibit 19. Again, I would just qualify this exhibit that it's really just to assist you in following and get a sense of direction where these facilities are from the Ameren Energy Center. We do not -- I should mention, too, that this location map, we do not have to put up on the slide show.

MR. MORE: That's correct.

MS. McFAWN: So if we can take a moment, I could probably get some --

HEARING OFFICER KNITTLE: Let's go off the record for a minute.

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

HEARING OFFICER KNITTLE: We're back on the record. Ms. McFawn, you have something you want to note.

MS. McFAWN: We have -- on Exhibit 19, we've noticed an error that we'd like to point out so that all of you can -- so correct your business location map. There was some last minute corrections on some other items, we dropped the location of Gifford Road. It is between the Realen property and the Elgin Energy Center.

HEARING OFFICER KNITTLE: There's a road running north/south there?

MS. McFAWN: That's correct.

HEARING OFFICER KNITTLE: As wide -- you'd like it depicted, even though it's not to scale, as wide as the other roads up there?

MS. McFAWN: Yes. Actually, it's more of a main thoroughfare. It's a two lane and so is Gasket Road and Spaulding is two lanes, but kind of a narrow one.

HEARING OFFICER KNITTLE:

Mr. Sternstein, do you have any objection to that clarification?

MR. STERNSTEIN: Not at all.

HEARING OFFICER KNITTLE: We'll admit it and we'll accept the clarification as well.

MS. McFAWN: Thank you.

MR. JOHNSON: So the Ameren property abuts that road as does the Realen property?

MR. SMITH: That is correct.

MS. McFAWN: If you'd like to begin?

MR. SMITH: Sure. I'd like to change our reference document from attachment A1 to A2, which is Exhibit 2 from today's proceeding. It shows a little bit more detail and is more congruent with the business location map, Exhibit 19 I think it was.

MS. McFAWN: That's correct.

MR. SMITH: Slide No. 1 basically shows the entrance to the Elgin Energy Center site from Gifford Road.

You can see the four units lined up. The Realen property would be to the back of the photographer and we are looking to the east in this photograph. Unit one would be the farther most unit. Number four would be the one nearest to the photographer.

Slide No. 2 is also a slide of the entrance to the Elgin Energy Center site showing typical truck traffic that we see there routinely.

Now I'd like to show a few slides of the Elgin Energy Center.

Slide No. 3 would be an overview of the site showing just three of the units looking to the Realen property. You can see we have a retention pond and then Gifford Road runs north/south as being pointed out.

Slide No. 4 would be looking to the north over the facility and the main unit in view here would be unit number one and then unit two to the left and in the distance you can see the Concrete

Pipe Company, which we'll talk about later, to the right would be a landscaping materials company and the Spaulding Road substation. Spaulding Road is visible in the slide. It would be on the side of the Concrete Pipe Company.

Slide No. 5 is a view northeast of the peaker site. You can see the ComEd transmission line corridor as well as the Spaulding Road substation and again, that would be unit number one to the left and our service building in the center of the building.

Slide No. 6 is a view directly east looking toward the railroad tracks, the ComEd transmission line corridor and where the natural gas pipeline was built.

Now I'd like to show a few pictures of the U.S. Can facility. This is a top down view of the U.S. Can facility, which is in the distance. The property with activity is a construction company between us and U.S. Can.

Slide No. 8 is another view of U.S. Can.

Slide No. 9 is a poster view of some of the trucks that are stored on the U.S. Can property.

Slide No. 11 (sic) would be trucks near Gifford Road. To the right would be the Realen property, to the left would be U.S. Can and you can see that they enter and exit their parking lot from Gifford Road.

Slide -- this is No. 11, correct? Slide No. 11 is an additional shot of the trucks next to Gifford Road.

Slide 12 is a photograph of the loading dock arrangement at U.S. Can. This is Gifford Road in the foreground and as you can see, the semis use Gifford Road to back in to their loading dock and pull out, enter and exit, from this location.

Slide No. 13 is a view of the loading dock early in the morning and you can see that we do have an active truck

backing in or exiting at that time.

I'd like to show some photographs of Martam Construction, Inc. at this time. Slide No. 14 shows their office building.

Slide No. 15 is the Martam Construction building showing the truck entry or exit rather from their property onto Gasket Drive and this is a fairly typical activity throughout the day. Gasket Drive empties onto Gifford Road.

Slide No. 16 is an aerial view of the Martam facility from one of our water towers at Elgin Energy Center.

Slide No. 17 is another view from the Elgin Energy Center.

Please note the heavy equipment operational which is ongoing and routinely observed at Martam Construction in this outdoor activity.

Slide No. 18 shows the proximity of Martam Construction outdoor activity to U.S. Can in the background.

Slide 19 is basically the same

information.

Slide 20, again, shows outdoor activity routinely performed at Martam Construction. Again, please note the industrial equipment and semi-trucks and trailers that enter and leave the site routinely.

Slide 21 is just another view of the same information.

I'd like now to show you the BFI facility, which is to the east of our peaker site. This is a repair and maintenance facility for BFI truck fleet. You can see there a retention pond in the middle of the photograph and their maintenance facility to the back. On the other side of the BFI property would be the transmission lines, which you can see the towers in the photo, the railroad corridor and the gas pipeline corridor.

Slide 23 is another view of the BFI property showing storage of their trucks and their containers and behind BFI would be another construction company

and please note the heavy industrial nature of the equipment which they store on their property and which they move in and out of there on a routine basis.

MR. JOHNSON: You're showing us the character of the area when you guys moved in in 2001. This is not an attempt to establish the ambient noise that's coming from the surrounding property, but rather just to show us what the area looked like when you moved in? The zoning was consistent with the use at that point?

MR. SMITH: Our intention with the slide show is to give you an appreciation for the industrial activity and the nature of the area when we identified it as a good site and when we achieved the proper zoning from Elgin.

MR. JOHNSON: Thanks.

HEARING OFFICER KNITTLE: Can you back up one picture?

MS. MOORE: Are those homes overlooking the BFI area there?

MR. SMITH: That is a subdivision that's more or less on the hill on the other side of the railroad tracks, the transmission lines. There's a section of industrial activity onto Spaulding, it goes in that direction, which we aren't going to show you today and that subdivision lies up on that hillside.

HEARING OFFICER KNITTLE: That's east of the facility?

MR. SMITH: It would be to the northeast.

MS. McFAWN: Mr. Smith, Member Johnson asked you if we were trying to also demonstrate noise in the area and I wondered if you could address that?

MR. SMITH: Yes. We are showing you recent photographs, so this is typical of what we saw when we developed the site, but it's also typical of the existing character and nature of the activity in the area today.

MS. McFAWN: And that activity

might be the source of ambient noise or background noise?

MR. SMITH: That is correct.

MR. JOHNSON: Thank you.

MR. SMITH: This is No. 24, I believe. Josh, is that correct?

MR. MORE: That is correct.

MR. SMITH: This is slide No. 24 and it is showing that a BFI truck is being towed to their maintenance facility and this is Gifford Road and in the background would be the Realen property.

Slide 25 is just another view of the same tow truck and BFI truck going down Gasket Drive.

Slide 26, we're going to show you several slides that progressively rotate to the north, which would be the left. This is looking at BFI and you can see the ComEd transmission lines. You can see perhaps the railroad car sitting on the track, the dark boxes there.

Slide 27 shows the BFI building.

Slide 28, again, shows the BFI

property moving to the north.

We would like to now show another photograph of transmission lines over the railroad tracks, slide No. 29.

Slide No. 30 is a photograph of the Commonwealth Edison Spaulding Road substation, which is where we connect. The gate seen in the slide does open on to Spaulding Road.

We would now like to show you G.E. Capital Modular Space Division. Slide 31 is looking directly -- a bit to the northeast. G.E. Capital is on the left. Thirty-one A is the entrance to G.E. Capital on Gifford Road.

Thirty-two, you can see the mobile trailers stored at the site by G.E. Capital.

Thirty-three is a similar site, similar view.

Thirty-four is, again, another view of the same site.

Please note that you can see the Concrete Specialty Products Company

behind the G.E. Capital storage yard on the other side of Spaulding Road.

Slide 35, you can see Bluff City Minerals, a quarry to the northwest in the background.

MS. McFAWN: Could you enlarge that?

MR. MORE: Sure.

MR. JOHNSON: That's on the west side of Gifford Road directly north of the Realen property?

MR. SMITH: That is correct. This activity -- this property is directly west on Gifford Road to the north of the Realen property, that is correct.

We'd like to show additional photos of industrial establishments on Spaulding Road.

Slide 36 just merely says that Gifford and Spaulding intersect and there are a variety of smaller businesses along Spaulding Road.

Slide 37 is a landscape products

processing facility. Note, that they also use large rigs to haul materials in and out.

Thirty-eight is, again, the Commonwealth Edison Spaulding Road substation.

MS. McFAWN: I think that one is deleted -- the second view of Spaulding -- or the Commonwealth Spaulding Road substation. We'll go right on to Material Waste Handling Corporation.

MR. SMITH: Okay. Slide 38 then would be Material Waste Handling Corporation and slide 40 would be the same company, which again shows some of their heavy equipment, which is transported in and out of Spaulding Road and Gifford Road.

Slide No. 40 would be Spaulding Road crossing the railroad. I think we've got a problem here.

MR. MORE: We're on 41.

MR. SMITH: This is No. 41 -- we're going to call it 40, I think, for

the record, is that correct?

MS. McFAWN: Yeah.

MR. SMITH: This would be No. 40 for the record. This is the EJ & E line in this photograph. Note, that there is a through line plus several citings which are active and used today for storing railroad cars and engines and things of that nature.

Then slide 41 is a -- this is the Metra line which crosses Spaulding Road, again in the same vicinity.

Slide 42 would be Concrete Specialty Corporation at the corner of Spaulding Road and Gifford Road and then 43 would be the building.

Forty-four, this is one of their storage yards at that site.

We'd like to show you Bluff City Mining at this time. Slide No. 45, again, Bluff City Mining is across Gifford Road north of Realen.

Slide No. 46 is a closer view of the same operation.

Forty-seven, again, Bluff City Mining and note that the entrance is onto Gifford Road.

Forty-eight is a photograph of the scraper that they use to help keep mud and dirt off of Gifford Road, which is a problem during wet weather.

HEARING OFFICER JOHNSON: Does Spaulding Road divide Realen property and Bluff City Mining?

MR. SMITH: Spaulding Road terminates at Gifford.

HEARING OFFICER JOHNSON: Okay. So it doesn't -- this is accurate then on Exhibit 19, it doesn't divide the two, there's no road going between Bluff City and the Realen property?

MR. SMITH: That is correct. There is no road between those two properties.

HEARING OFFICER KNITTLE: Thank you.

MR. SMITH: Bluff City -- the entrance to Bluff City is right at

Spaulding Road so it's close to the property line, probably between Realen and Bluff City.

HEARING OFFICER KNITTLE: Thank you.

MR. SMITH: Slide No. 49 is typical traffic seen on Gifford Road.

Then slide 50 is -- and the remainder of these are basically just samples of the types of truck traffic that we see routinely on Gifford. Gifford does serve as a link between Route 20 and West Bartlett Road so there's a lot of traffic traversing this area.

MS. McFAWN: If you would look at a larger map, also I'd also note that the tollway, I-90, is north of Route 20, so Gifford, even though it's a small road, is a main thoroughfare for trucks.

MR. SMITH: That concludes my prepared remarks for today.

HEARING OFFICER KNITTLE: Thank you, sir.

Ms. McFawn, do you want to present your other two witnesses and then ask questions?

MS. McFAWN: Yes, please.

HEARING OFFICER KNITTLE: You can proceed with your next witnesses.

MS. McFAWN: Our next witness is Dave Parzych.

Before I go onto that, though, if I could mention, we are using attachment 2, Exhibit 2, which is Exhibit 2 in the Board's record today and that would be a useful map to also use when you review the slide show. It shows the location.

HEARING OFFICER KNITTLE: Exhibit 2?

MS. McFAWN: Yes. In conjunction with the one that we gave you, the hard copy, and the business location maps.

(Whereupon, Mr. Parzych was sworn in.)

MS. McFAWN: Just one final note. On attachment two, the Realen

property was not identified per se. Instead it shows up as white and that's because at the time Elgin drew this up on us, Elgin -- the city of Elgin helped us develop this map so it wasn't part of the type of map it was -- which was a land use map or a zoning map and this was in -- this was being contested in a judicial forum and so it wasn't included in.

HEARING OFFICER KNITTLE: Okay. Duly noted.

MS. McFAWN: And, Mr. Parzych, you've been sworn in. If you'd like to proceed now with the summary of your testimony that you -- there is a full copy of his testimony, which is -- his prefiled testimony, Exhibit 9, in the Board's record and if you could proceed with your summary.

MR. PARZYCH: Good afternoon. I'm Dave Parzych of Power Acoustics, Inc. As a principal and founder of Power Acoustics, Inc., my career in acoustics and noise control engineering spans more

than 21 years. Over the past 11 years, my work has been focused on power generation facilities with gas turbines as my primary interest.

I have been involved with the acoustics of Ameren Elgin power generation facility from the time the facility was in its conceptual stages through the present. In the project's conceptual stage, Power Acoustics, Inc., undertook the task of estimating the impact of operating four simple cycle Siemens Westinghouse 501D5A gas turbines at the Ameren Elgin site. A Power Acoustics, Inc., report: Acoustical evaluation and ambient sound survey of the Ameren simple cycle power facility proposed to be built in Elgin, Illinois was generated in November 2000 summarizing the results of the study. The impact analysis showed the proposed Ameren Elgin gas turbine facility containing state of the art noise control features would achieve the Illinois state

noise regulations for the zoning and property uses that existed at that time.

My most recent work relating to this facility started in June of 2003 and continues through the development of a new site specific noise emission limitation for the Ameren Elgin facility. For this study, I measured the sound with the facility operational to determine if the facility met with noise requirements at the nearby residential areas as projected in the initial analysis performed in the fall of 2000. I also measured the sound pressure levels across the street on the western side of Gifford Road to determine the impact of the facility on the Realen property. The sound tests were accomplished with a single gas turbine unit in operation, that was the one closest to Gifford Road. Subsequently, analytical techniques were used to simulate the effects of the three other units. The results of the study after correcting for four unit operation

showed that the Illinois noise regulations were achieved at the existing residential areas. However, at the location adjacent to the Ameren facility on the west side of Gifford Road the corrected results indicated that the facility would likely be in excess of the Illinois octave band noise regulations if the property is used for residential purposes.

Ameren further asked if any additional noise control could be added to the facility to enable it to achieve the residential noise levels. I concluded that generalizations could be made for known noise controls such as barrier walls and/or buildings that could further reduce the sound from the facility. The monetary cost of these treatments, however, would likely be high since the facility was initially designed to be fully outdoor. Also, the acoustical benefits of the treatments, if any, could not be accurately estimated

without performing a detailed design study.

The 501D5A gas turbines and supporting equipment found at the Ameren Elgin power facility contain the largest amount of sound abatement I have ever seen supplied by Siemens Westinghouse for simple cycle 501D5A gas turbines. Noise enclosures and ventilation silencers are used extensively to control the sound radiated by the gas turbines and supporting power generation equipment. The low frequency exhaust silencing system at the Ameren Elgin facility is state of the art. As for the inlet system, substantial inlet silencing and acoustical duct lagging were provided for noise control. The silencer consists of parallel baffles specifically designed to attenuate the high frequency compressor noise.

Other prominent noise sources of sound such as the air-cooled generator, heat exchangers and transformers cannot

be completely enclosed because they need air flow for cooling. Any additional noise control of these components could have a negative impact on the operational efficiency of the facility.

Since the monetary and operational cost associated with acoustically modifying the existing Ameren Elgin facility was prohibitive and its successful outcome questionable, I was asked to help determine obtainable site specific sound pressure level requirements. This task is complicated by the limited amount of available operational data and an endless combination of weather and operational possibilities that can exist. I had obtained sound pressure level data with a single unit operating at base load in June 2003 that was analytically corrected to four unit operation. Greg Zak had obtained sound pressure level data with all four units in base load operation on September 2nd, 2003. Both sets of data

were taken under weather conditions favorable to sound propagation in a westerly direction.

To determine the site specific sound pressure level requirements, a combination of the sound pressure level data measured by Greg Zak and myself was used. Also factored in was information supplied by Siemens Westinghouse that defines the equipment sound power levels. In developing the proposed site specific limits, we tried to stay within the existing Illinois daytime noise standard. However, in the 31 and a half Hertz, 1,000, 2,000 and 4,000 Hertz octave bands, the daytime standards did not adequately allow for the sound produced by these units. The levels proposed represent the maximum of either the Illinois daytime standard or the average of the measured synthesized values, plus one standard deviation and a safety factor as we deem necessary. That concludes my summary.

MS. McFAWN: Thank you, Mr. Parzych.

HEARING OFFICER KNITTLE: Thank you. Ms. McFawn, do you want to present your last witness?

MS. McFAWN: I would.

HEARING OFFICER KNITTLE: Can you swear him in, please?

(Whereupon, Mr. Zak was sworn in.)

MR. ZAK: Good afternoon. My name is Greg Zak, owner of Noise Solutions by Greg Zak. I am here today on behalf of the Petitioner, Ameren, in support of its proposal for a site specific rule for the noise levels applicable to its Elgin Energy Center.

With my testimony today, I will review some of my prefiled testimony by addressing the sound measurements taken by my firm on September 2nd, 2003 and the information developed based upon those measurements. I will also address the comparison of those measurements to the measurements of Power Acoustics, Incorporated, PAI, as well as why the

site specific limitations proposed by Ameren will not have a significant impact or be the cause of noise complaints in the future should the Realen property be developed residentially.

For more than 31 years, I have been an expert involved in both the public and private sectors with noise measurement, noise control engineering and the effects of noise on people and communities. As a recognized noise expert during my tenure with the Illinois EPA, I was and still continue to be involved in enforcement and regulatory hearings before the Illinois Pollution Control Board and various court hearings. Most recently I represented the Illinois EPA as its noise expert when testifying before the IPCB's hearings on August 23rd and October 5th, 2000 in the matter of: Natural gas fired, peak-load power generating facilities, peaker plants, PCB R01-10.

On the night of September 2nd,

2003 my firm conducted a sound measurement test at the Elgin facility while the facility was not operating and while it was fully operational, that is, with all four units at maximum load capacity. These measurements were taken at the same approximate location as those taken by PAI. The ambient measurements began around 9:00 p.m. with only the quietest ten minutes of data being used to compile the ten minute ambient and ceased at 9:30 p.m. because the Ameren facility was in start-up mode by that time. A primary source of ambient noise was the U.S. Can facility located south of the Ameren facility with its idling trucks, back-up beepers and intermittent shouting by workers. A large amount of other extraneous noise was not reflected in the ambient measurements at all, in accordance with the IPCB measurement procedures. Extraneous sound is of relatively short duration and comes and goes such as vehicles passbys, aircraft

flyovers, train whistles and so forth. Extraneous noise is excluded from the measurement because it interferes with the measuring instruments' ability to accurately record ambient noise and the noise source of interest. Ambient noise, unlike extraneous noise, is measured to be used to quantify the total background noise measured and also isolate the ambient noise from the subject noise source.

In the case of the noise in the area of the Ameren facility, a great deal of extraneous noise is present at night and the same conditions would exist during the day, but would be even worse due to much heavier traffic. These types of extraneous noise are the type that interrupt or drown out conversations and sleep as opposed to the steady state noise of the Ameren facility, which albeit audible, would have little impact on conversation or sleep. In fact, as explained in more detail later, the high

level of extraneous noise in the area of the Ameren facility makes remote the likelihood of noise complaints from the Realen residential development regarding the Ameren facility.

The second portion of the night's measurements commenced at 10:00 p.m. and ceased at 11:17 p.m. During this period, the facility was fully operational for 41 minutes of which I selected the ten minutes most representative of the loudest sound levels minus the extraneous noise from other sources. Again, the extraneous noise included a great deal of road traffic and airplane flyovers. The time span required to get ten minutes of data without also including the extraneous noise present was 17 minutes. This is because the measurement instrumentation had to be put in a pause mode over a dozen times to avoid contaminating and overwhelming the Ameren data with the noise from many passenger jets passing

overhead and road traffic passing close to the microphone. Measurements were difficult to obtain because it was necessary to constantly dodge the incoming barrage of extraneous noise in the area.

The results of these measurements were also presented in the form of raw data, corrected data and corrected and rounded data for ease of comparison with the existing Board noise emission limitations as well as site specific levels requested by Ameren. I then compared the results with the measurements obtained by PAI on June 18th, 2003, which were based upon measurements taken when just one unit was operating at full load and an extrapolation of that data performed by PAI to simulate four units at full operational load. I've got a reference to an exhibit number there. I'm not sure which exhibit that is.

MS. McFAWN: That would be

Exhibit 17.

MR. ZAK: See Exhibit 17, please. This comparison demonstrates that there is little deviation from the PAI data except that measured at two frequency levels -- at two high frequency octave bands where the decibel level at the 4,000 Hertz and at 8,000 Hertz were significantly different. The differences were 15 dB higher at 4,000 Hertz and 20 dB higher at 8,000 Hertz. These differences are largely due to excessive insect sounds that were unavoidable during my measurement period. I would note that the insect noise was a constant state noise in the area and, therefore, is considered ambient. The presence of this type of ambient noise is not noted in the PAI report since most likely because this condition did not yet exist. Apparently, between June and September of 2003 thick weeds and brush had grown into a heavily overgrowth that harbored a variety of very loud insects. When the

ZAK corrected levels are compared to the extrapolated levels obtained by PAI, the operational measurements at full capacity are considerably lower than the PAI extrapolated, fully operational measurements with the exception of 2,000 Hertz. Nevertheless, the difference at that octave band was just 2.4 dB, well within the normal range of potential error when measurements taken with only one unit operating are compared to the actual measurements taken with all four units operating, given that each unit has its own subtle characteristics.

Finally, I compared Ameren's requested site specific noise emission limitations with a portion of the Board's current limits and conclude that the noise limitation proposed in this rulemaking are not significant because of the noise otherwise present in the neighborhood area. The presence of extraneous noise in this area is so pervasive that any attempt to measure

ambient noise or noise from the Elgin Energy Center without subtracting out extraneous noise would result in virtually identical measured noise levels. In other words, the extraneous noise, day and night, masks the noise generated by the Ameren Elgin facility. These noise sources not only mask the noise from the Ameren facility, but also are the type that interrupt speech and sleep and are therefore more intrusive.

To conclude, I reviewed other state noise programs and found no noise regulations in 43 states and six states that have very little noise regulation. Peaker noise is not regulated on the federal level or by the Region 5 states; California, Texas or New York. Illinois' regulations and stationary (sic) provisions result in a very active noise program, albeit often citizen initiated. The Board is very familiar with the many noise complaints adjudicated by citizens here in Illinois. That program has been

used successfully for over 30 years to provide a forum for controlling noise in the state. Although the Illinois EPA has had limited resources for this program, the legal system is well used through citizen enforcement before the Board and the Board's regulations, those generally applicable and those adopted for specific noise sources and types. Those regulations have a positive effect even outside the context of enforcement cases. As Ameren has testified, it constructed the Elgin facility to comply with the applicable Board regulations. The possibility that it may not be able to comply in the near future is based upon rezoning, which allows for new land uses, not noise complaints. I would also add that based upon my experience, changes in local zoning have oftentimes been responsible for triggering noise complaints before the Board and other forums.

In my 30-year career with the

IEPA, the Agency did not receive any complaints regarding peaker noise. Curiously, most stationary noise sources are not controlled. Peaker plants are one of the very few industrial, stationary sources of noise that are equipped with noise control mechanisms and that equipment is very effective. That could account for there being no noise complaints received concerning these types of plants and in this case, the Elgin facility was designed and equipped with noise control mechanisms which are state of the art for this industry.

In conclusion, the likelihood of noise complaints concerning the Ameren facility from the Realen property, should it be developed, is remote. The character of the area is such that ambient noise and noise generated by Ameren are dominated by extraneous noise sources that are more of the type of noise that are the underlying cause of

noise complaints. Reducing noise further from the Ameren facility will not remove or reduce the impact of the area's extraneous noise.

For these same reasons, any environmental impact, if the proposed numerical limits for receiving Class B lands are adopted as requested would be insignificant. These three new limitations are proposed to make the levels for Class A and B receiving lands consistent. Furthermore, the one to two decibel difference between the current Class B noise limits at 1,000, two and 4,000 Hertz octave bands will not be significant.

I hope this summary has been helpful and I will try to answer any questions you may have along with Rick Smith and Dave Parzych. Thank you very much.

THE REPORTER: Could I have one minute to change my paper?

(Whereupon, after a short break

the following proceedings were had.)

HEARING OFFICER KNITTLE: We are back on the record after a short recess and, Mr. Sternstein, are you going to offer your witness?

MR. STERNSTEIN: Yes, I am. Before I do that, though, I'd just like to ask the Board to admit a couple of exhibits. The first one would be the amended prefiled testimony of Howard Chinn, which was submitted to the Board filed on January 8th, 2004, and I supplied copies of that to the persons on the service list.

HEARING OFFICER KNITTLE: Is that going to be Attorney General's Office Exhibit A?

MR. STERNSTEIN: A.

HEARING OFFICER KNITTLE: Any objection to that?

MS. McFAWN: No objection.

HEARING OFFICER KNITTLE: That will be admitted. Anything else?

MR. STERNSTEIN: And then prior to the hearing, Ms. McFawn had asked about a resume for Mr. Chinn and so Mr. Chinn, being a good sport that he is, went ahead and threw a resume together basically focusing -- since a resume for Mr. Chinn would probably go for several hundred pages, he basically just focused in on his experience with the Illinois noise laws and regulations, that's only four pages, so I have copies here and I'd be happy to admit that as Exhibit B.

HEARING OFFICER KNITTLE: Do we have an objection to that? Have you taken a look at that?

MS. McFAWN: I haven't looked at it. I could take a look at it.

MR. STERNSTEIN: Let me pass those around real quickly.

HEARING OFFICER KNITTLE: Yeah, give one to Ms. McFawn and one to us and we'll see if she has an objection and whether or not we should admit that. This would be AGO B, Mr. Sternstein.

MR. STERNSTEIN: That's correct.

MS. McFAWN: We have no objection to it.

HEARING OFFICER KNITTLE: That will be admitted as well. Anything else?

MS. McFAWN: I would just mention that in response -- thank you, Mr. Chinn, for doing it, it was brought up during a prehearing conversation, I didn't anticipate it, but thank you and when we return to our presentation, I would like to admit the resumes that are on file with the Board for our two witnesses as well.

HEARING OFFICER KNITTLE: You can offer those now if you'd like?

MS. McFAWN: Certainly.

HEARING OFFICER KNITTLE: Mr. Sternstein, any objection? Have you seen those?

MR. STERNSTEIN: No objection.

HEARING OFFICER KNITTLE: I'm assuming we're talking about Mr. Parzych and Mr. Zak, right?

MS. McFAWN: That's right.

HEARING OFFICER KNITTLE: Let's admit those then, correct me if I'm wrong, as Exhibits 20 and 21.

MS. McFAWN: Yes, that's correct. Why don't we make -- I have a copy of Mr. Zak's here with me today that we can actually label and mark.

HEARING OFFICER KNITTLE: It will be No. 20.

MS. McFAWN: I believe I didn't bring an extra copy of Mr. Parzych's so we'll just -- the Board has it on file, though and I will submit after the hearing --

MR. JOHNSON: It's in this --

MS. McFAWN: That's correct.

HEARING OFFICER KNITTLE: Is it part of prefiled testimony or --

MS. McFAWN: It is the back document to the compiled reports by --

HEARING OFFICER KNITTLE: Mr. Sternstein, any objection to that -- admitting it -- they've already filed it,

but they don't have a copy here.

MR. STERNSTEIN: No objection. I've seen it.

HEARING OFFICER KNITTLE: We'll admit that as well and if you could, when you get a chance, just get us a copy that we can number as Exhibit 21.

MS. McFAWN: I'll send it to you.

HEARING OFFICER KNITTLE: That's fine. Al right. Mr. Sternstein?

MR. STERNSTEIN: Yes. I'd just like to present the Attorney General's only witness, Howard Chinn, he's a professional engineer and to correct my earlier statement, I believe he's actually been with the Attorney General's office for almost 33 years. Mr. Chin has assured me that he will speak loud enough for the court reporter to hear him, but if the court reporter is having any trouble, please just interrupt him and he'll move up.

HEARING OFFICER KNITTLE: Would

you swear him in?

(Whereupon, Mr. Chinn was sworn it.)

MR. CHINN: My name is Howard O. Chinn. I'm a licensed professional engineer in the state of Illinois, the state of Wisconsin, the state of Michigan and the state of Indiana and I've been employed with the Attorney General's Office since April 1971, so that's almost 33 years.

The prefiled testimony is in itself a summary because I have pretty much condensed my comments down to this testimony. We're concerned that the hearings for the site specific rulemaking are premature in that the people that will be living in that area in the future will not have an opportunity to testify on their behalf so we think that the present hearing is premature. I'm going to skip some of the -- over some of the legal items here in three and four.

MR. STERNSTEIN: Mr. Chinn is referring to pages three and four of his

prefiled testimony. According to Ameren's proposal, there are already residences in the area adjacent to Ameren's facility that has been recently reclassified as "A" land use. As I understand it, that Realen property has already been zoned for residential and so it is already a Class A land across Gifford Road. We believe that Ameren should have no expectation that any vacant undeveloped land in the area would remain non-residential forever unless Ameren acquired the land or parts thereof for a buffer zone. One of -- Greg Zak had testified at Board hearings for the informational peaker plant informational hearing that he had outlined four strategies to control noise from peaker plants and one of them is a buffer zone. In its proposal, Ameren claims that it will continue to operate the facility as designed to provide the maximum noise control that is economically reasonable and technically feasible. However,

Ameren has not provided us with any credible engineering design data or realistic cost estimate to substantiate the validity of this claim.

Ameren also claims that the exhaust silencing system installed when the facility was built was state of the art. We have not been able to define what that state of the art means and further that it affords maximum noise control. I think these terms are ambiguous and vague. We cannot quantify or verify the validity of these statements.

During the Board peaker plant hearing, Greg Zak testified, I quote, first properly designed and installed combustion air intake silencers reduce intake noise by approximately 99.99 percent to 99.99999 percent in the average peaker plant. I would like to know how much the noise has been reduced by the silencing equipment that has been installed at the Ameren facility.

Further, Mr. Zak testified that hardened acoustic enclosure completely containing the gas turbine similarly controls noise radiated from the turbine's outer shell. Third, properly designed and installed combustion gas exhaust silencers reduce exhaust noise by approximately 99.9999 to 99.999999 percent. Has this been done at the Ameren facility? What has been done and what is the percentage of reduction at that facility. That has never been quantified or stated in their proposal.

Ameren also discussed several conceptual technical alternatives under the heading, technical infeasibility and economic unreasonableness of further reducing low frequency noise at the turbine's exhaust. The costs estimate they have provided, we have not been able to verify because it does not contain any specific data on how they arrived at those cost estimates. Ameren provided no engineering design data or technical

specification of any kind for any of the technical alternatives discussed, opinion expressed or conclusion reached in the section of the proposal. The discussions on the experimental active noise controls are unspecific and do seem to apply to the Ameren facility.

We recommend that Ameren should proceed immediately with a detailed noise study that they mention in their proposal. This noise study is a prerequisite to the next step of determining what the engineering feasibility evaluation and economic analysis of alternative control technologies are. That's their own proposal. That's their own plan to do a detailed analysis measuring the noise level in the octave rank of each piece of equipment so they know what to control. Right now we don't know what to control.

As Greg Zak has testified, Ameren's proposal indicated that many of the area's ambient noise sources

contribute to mid and high-frequency noise such as airplane flyovers, trains, car and truck traffic. Ameren claimed that the people usually react by physically closing out the noise source. However, they provided no references or citations for that position. We think there is a big difference -- a discernible difference between noise from Ameren's facility, which is continuous in nature and character, as opposed to the transient noise emitted by airplane, trains and automobiles.

Ameren further claims that the noise from the facility has little or no impact on residence because the facility generally operates during either hot or cold weather. So it sounds like it's going to be operating a lot. During hot and cold weather, Ameren claims that most people close their windows and doors in order to operate air conditioning or operate heating units. Again, Ameren provides no facts, no references or

citation in support of that assumption and being involved with many nuisances type enforcement cases with the state, and the Court and the Board has found that if people have to close their windows and shut their doors to escape noise it constitutes an unreasonable interference with the enjoyment of life and creates a nuisance in violation of Section 24 of the act for noise and air pollution is under Section 9(a) of the Act.

Ameren claims it is going to cost $1.2 million dollars to provide an enclosure for the facility to control mid-frequency noise is unsubstantiated again. Ameren provided no cost breakdown or an engineering basis for the cost associated with such an enclosure. Ameren's other cost estimates for controlling mid and high-frequency noise are also unsubstantiated.

I, myself, have visited a few facilities at the Hillside landfill where

they have the electric generating plant and they enclosed it in a building and you can barely hear the noise outside the building, but inside you have to wear ear plugs because the noise is too loud.

What surprised me was that when I walked into the building, there was no roof so the noise can --so that you can have air exchange coming in there and there's no obstructions, but the noise is directed upward.

Ameren filed with their prefiled testimony a copy of the acoustical evaluation and ambient sound survey dated November 30th, the year 2000 and a copy of analysis and results of acoustical measurements taken near the Ameren Elgin, Illinois power facility, which was dated June 20th, 2003. The survey is a preconstruction report which indicated that significant but achievable sound treatments would be necessary to achieve the acoustical requirements of the facility. Illinois noise regulations

were found to be achievable with four unit operation. The survey concluded that it is unlikely that the simple noise abatement fixes such as barrier walls would completely solve the problem. It is probable that a building would be required over the gas turbines, generators and inlet ducting to approach the Illinois daytime noise regulations and mitigate the mid-frequency issue. I think that that concept -- that technology needs to have a detailed engineering evaluation to determine the technical feasibility of that concept.

Ameren also asserted that other peaker plants should not be compared to their facility unless the other plants are equipped with identical manufacturer's equipment. This is absurd and technically illogical. As an engineer, we don't compare another facility unless it's with the same identical equipment. I think you need to look at other equipment of different manufacturers of

different design to make that determination whether this equipment here will provide the noise level that will meet the state of Illinois regulations. However, Ameren presented no information on their equipment selection process to indicate that they had considered or evaluated other peaker plants on the market that had a lower noise emission rating. Even though they say that what they have now are state of the art maximum noise control, there is no way that we can verify these statements.

During the Board's informational hearing on peaker plant, the Illinois EPA indicated that as of November 6 the year 2000 there is 67 air permits for existing and proposed power plants using either simple or combined cycle turbines in Illinois. At that point and as up to today, none of the owners of these facilities had submitted a petition for relief from the Illinois noise regulation and again, to date, it appears that no

other peaker plants have submitted such petitions. Ameren has presented no convincing or compelling information to demonstrate there are extenuating circumstances unique to their facility that would warrant a site specific regulation for its Elgin facility.

During the Illinois pollution Control Board hearing on peaker plants, there were witnesses representing the county of DuPage, Versar, an environmental consultant to review environmental issues related to peaker plants. During the peaker plant hearings before the Board, Versar indicated that peaker plant noise may be a concern. Versar provided information at the hearing on six proposed peaker plants, five in Illinois and one in Maryland, from four different developers and it's my understanding that they were four different manufacturers of peaker plants, further Versar indicated that the five proposed peaker plants in Illinois were

expected to meet Illinois noise regulations.

Ameren contended that the peaker plants are not regulated on the federal level is inaccurate. The Federal Noise Control Act of 1972, as amended, and it was amended in the 2002, the federal statute references type of equipment that are significant sources of noise and those equipment are such as motors, turbines and generators.

Ameren further contended that Illinois is probably the most active state in the union in terms of noise regulation is also inaccurate. The Illinois Environmental Protection Agency no longer has a noise control program. In the rulemaking for the amendment of the noise regulation, they sent a letter to the Board saying they no longer have a noise program and ask that their name be taken off the regulations and prior to that, the only person that they have working at the Illinois EPA statewide is

Mr. Greg Zak, so how active of a program can the state have? The only other state agency that is in it from time to time is the Attorney General's Office, but in the early '70s or mid '70s, Illinois did have an active noise program. They had a substantial and significant source of people who were qualified to take noise measurement. My recollection is that in this northern area there were four inspectors who were qualified to take noise measurements. Now there are none and before Mr. Zak retired, he was the only one in the state of Illinois, so I would say that that statement is imprecise, inaccurate and not true.

Ameren conducted noise measurements as well as two noise measurements, Mr. Zak did one of them. Ameren correctly indicated and I concur that the two sets of sound pressure level data cannot be considered a complete statistical representation of sound from the facility. However, Ameren is

incorrect in their claim that conducting more actual measurements while the facility is fully operational is not feasible, that is un -- I don't understand that at all. The variables are not, as Ameren claims, far too numerous to run a sufficient number of tests to create an adequate database for decision-making purposes. I recommend that Ameren take at least three additional sets of noise measurements following the upcoming adoption of the amendments to the Board noise regulations. Ameren should take these measurements when all four units at the facility are fully operational and when these units are in a start-up mode, because I have heard from people that that is when this noise is at its maximum, when these plants are started up. Each of the sound measurements should be taken under similar atmospheric conditions, but at different receptor locations. The measurement should be

taken when the ambient noise level is at its lowest, not at its highest. The atmospheric conditions should be fully documented and include such information as both cloud cover and precipitation. The measurements should be compiled in a report and should include a scaled map identifying all physical features and topography. That was not included in the prior noise measurement. The detailed noise study that Ameren described in the proposal should be conducted at the same time, if it is convenient and practicable.

Again, during the early Board hearings, informational hearings on peaker plants, a consultant, Mr. Erjavec, of Indeck indicated that Indeck's peaker plants were designed to meet the Board's nighttime numeric noise standards at all times because these plants may be called upon to operate at any time and because sound attenuation cannot be increased at night. He also added that Indeck's

peaker plants are meeting Illinois noise standards via buffer zones or designed noise silencing measures.

Indeck's consultant indicated in the public hearing in Docket R01-10 that, while it is true that low frequency noise is more difficult to mitigate than high frequency noise, that doesn't mean that it can't be controlled at all. For example, a reasonably substantial building envelope can contain much of the equipment noise inside the building and barriers that can provide a noise reduction of at least five dB at any frequency provided they block the line of sight between the noise source and the receiver. We recommend that Ameren should conduct an evaluation -- be able to contain its noise emissions at all levels with a building that would block the line of sight. Thus, Ameren should be able to contain its noise emission at all levels with a building that blocks the line of sight between the facility

and the proposed residences that will be built nearby across Gifford Road.

For all the reasons above and in recognition of the record developed by the Board in Docket R01-10 and in the interest of fulfilling the intent and purpose of Title VI of the Act to prevent noise which creates a public nuisance, the Office of the Attorney General respectfully requests the Board that the Ameren proposal be denied. Thank you.

HEARING OFFICER KNITTLE: Mr. Sternstein, do you have any further witnesses?

MR. STERNSTEIN: No, that's it. We just have questions for Ameren, but we'll hold off until after the break.

HEARING OFFICER KNITTLE: Let's take a break and we'll go off the record.

(Whereupon, a after a short break the following

proceedings were had.)

HEARING OFFICER KNITTLE: We're back on the record after a short recess and we're proceeding -- we've heard all the witnesses that we need to offer at this point in time, is that correct, Ms. McFawn?

MS. McFAWN: We do have some additional testimony. It is to address some of the concerns raised by Mr. Chinn in his prefiled testimony and I think might also address some that -- the prefiled testimony that he read from today and, you know, there's some overlap and then we have some questions for Mr. Chinn.

HEARING OFFICER KNITTLE: Before we do your questions for Mr. Chin, we could wrap up the Board's questions for you guys, though, right?

MS. McFAWN: Right. Can we go to the additional testimony, though, first and then we'll go to the questions and answers?

HEARING OFFICER KNITTLE: Okay.

MS. McFAWN: Is that good?

HEARING OFFICER KNITTLE: Yeah. I just don't want to run into a time frame where we don't have an opportunity to get all of our questions taken care of.

MS. McFAWN: Okay. I'm looking for my copy.

MR. PARZYCH: Dave Parzych again for Power Acoustics and we're going to just add some additional testimony related to some of the silencing that is on some of the gas turbines in the Ameren Elgin facility and first we'd like to address the inlet silencing. The Elgin gas turbine inlet is 12 feet in length. The inlet silencer is the maximum length offered by either Siemens Westinghouse or its competitor, General Electric. The standard silencer offered by both Siemens Westinghouse and G.E. is eight feet in length, which is industry standard for gas turbines of this size. The 12 foot

silencer is quite substantial in reducing inlet noise and silencers typically reduce sound from the gas turbine inlet by more than 50 dB, which corresponds to 99.999 percent efficient in reducing noise.

There appears to be four additional feet of space between the Ameren inlet filter house and the silencer ducting that could be used to accommodate more silencing. However, the addition of more silencing could adversely impact the efficiency and power output of the gas turbine due to the increased back pressure. We also don't really believe that adding additional silencing would necessarily improve the -- or reduce the noise from the inlet beyond what it currently is. The silencers have a maximum ability to reduce noise that's limited by vibration, that is propagated down the metal in the ducting and that typically is in the 50 to 60 decibel range and we have no reason

to believe that this silencer isn't producing that kind of reduction.

On the exhaust silencing end, the Elgin gas turbine exhaust silencer is approximately 50 feet in total length. This is the silencer portion itself, not just the ducting. It's a mammoth exhaust silencer in terms of simple cycle gas turbines. For comparison, a substantially upgraded G.E. exhaust silencer is a level three exhaust silencer, which is one of their highest levels of exhaust silencing that G.E. provides, it consists of 16 feet of low frequency and four feet of high frequency silencing, so the total length is 20 feet. The Ameren silencer is 30 feet longer than one of the best silencers offered by General Electric. The effectiveness of upgrading the Elgin exhaust silencers beyond the current state is questionable. Any additional silencing would be experimental since it is highly probable that the effectiveness

of the silencer is the maximum obtainable with this configuration. In high noise reduction silencers, the maximum attenuation occurs when the sound from the noise source, gas turbine exhaust in this case, is reduced below the sound generated by the gas flowing past the silencer's perforated panels and internal exhaust ducting. When this is the situation, no additional reduction in sound could be observed by making the silencers longer. So simply adding more silencing on it isn't necessarily going to make it any better.

Increasing the silencer size also has other implications that would need to be addressed, additional exhaust stack silencing would add to the pressure drop of the system and reduce the efficiency and power output of the gas turbines. Additional silencing could cause the stack height or location to be changed. This would require new air modeling and approval from Elgin on

height restrictions.

In general, it's highly improbable that the cost efficient modification can be made to the exhaust stack that would allow further noise reduction and any modifications would be purely experimental and without guarantees of the outcome.

Generally, when you hit the level of silencing that Ameren has in these plants, if you go to a manufacturer and say, Mr. Manufacturer of gas turbine silencers, would you guarantee that I could achieve X number more dB reduction, they'll come back and say we'll do our best, but we won't guarantee it.

The costs of noise abatement items. The cost of noise abatement items are speculative since the exact noise reduction and other engineering requirements are not known at this time. The cost estimates are based on the types of modifications that have been seen before on other facilities. Certainly,

the cost of the noise abatement could be more or less than that offered by Ameren's testimony. The cost estimates, however, do provide a reasonable basis for discussion at this time to define the order of magnitude we're dealing with. Basically, the numbers provided by Ameren -- we want to show that -- we're not talking about $150 fix here and it's not $10,000 fixes, they're hundreds and millions of dollars worth of fixes.

It is my opinion that Ameren may be optimistic in some of the costs since estimates associated with the facility downtime, while any modifications would be made, and the cost of removing some equipment have not been accounted for.

As far as placing the facility within a building, placing the four gas turbines within a building does not appear to be feasible without totally redesigning and reengineering the facility. The gas turbine units were designed for outdoor use and are

significantly different than gas turbine packages designed for indoor use. When gas turbine units are purchased to be placed within a building, consideration is given up front to the air intake and all the coolers and the cooling issues.

Equipment that would require the modification to exist within a building includes, but isn't limited to, the gas turbine air intake system. The inlet filter house cannot exist within the building and must be moved outside in someway. This usually would be accompanied by placing the inlet systems over the top of the generator. The inlet filter house would then exist on top of the building's roof. These outdoor units have side inlet systems and require extensive modification. The generator enclosure must be ducted to the outdoors. The ventilation of the generator must be rerouted out of the building to allow cooling air in and hot exhaust air out. Any additional restriction to the air

flow could cause less efficiency of the generator and would likely reduce the power output. The gas turbine enclosure must be ducted outdoors. Substantial amounts of fresh air are needed around the gas turbines since any gas leaks can be explosive if gas builds up within a building. Indoors gas turbine units must have enclosures that have fully ducted outdoors. All cooler units such as the rotor air cooler and the lube oil cooler units would be required to be moved outdoors since the heat load they would place on the building ventilation would be large, that would require piping analysis and heat transfer analysis. Any reduction in heat transfer ability would likely affect the efficiency of the facility. The $25,000 cost of performing an additional detailed noise study assumes that gas turbine units could be run by Ameren at either a profit or at a minimum at a break even point. The study would require, as a minimum, measurements

to be made on a single unit. The study would be more accurate if more units could be tested to assure manufacturing differences between units are properly identified. The time necessary to acquire test data from a single unit is about 12 hours.

When power is not marketable, the cost associated with running these units is astronomical. The cost per hour for fuel is typically $7,500 to $9,500 per unit depending on the going rate of natural gas. The higher rate generally prevails during the winter months. Costs associated with starting each gas turbine could run several thousand dollars per unit.

Mr. Chinn has requested that three sets of additional test data be obtained during periods of minimum ambient noise. Unfortunately, minimum ambient occurs late at night or in the early morning hours. Times of minimum ambient noise also coincides with minimum

power consumption. This almost assures that no market would exist and Ameren's Elgin power facility would be required to run these special tests at a substantial loss. Operating four units concurrently could cost Ameren over $100,000 for a special two-hour run. Obtaining three additional groups of sound data from the facility would then cost a minute of $300,000 plus consultant's time and expense. This assumes that Ameren would be allowed to put more than 400 megawatts of excess power into the power grid. This additional power would require Ameren to find a base load facility that would be willing to cut its power production by the equivalent amount that Ameren's Elgin facility would produce.

Testing logistics is also a problem. It is my experience that obtaining sound data from a gas turbine facility is not always as straightforward as it may seem. I recently had the experience of trying to obtain sound test

data at a facility in Indiana. The test was expected to take eight hours, but took from December 16th, 2003 to January 8th, 2004 to complete. Weather, such as wind, rain, snow and frigid temperatures, the inability to sell power, the availability of natural gas and equipment problems all contributed to the lengthy delays. When power could be sold, the weather wasn't accommodating and when the weather was accommodating, the power couldn't be sold so it went on for more than three weeks. Finally, I believe the owner of the facility paid another power facility to take base load equipment offline and allow his plant to be tested on a day where the weather, gas and gas turbine units all cooperated.

Because of the cost associated with running many gas turbine units concurrently, analytical adjustments to the operation of a single unit operation are often used as Power Acoustics did in our June 2003 study. While it is

acknowledged that it would be preferable to take data with the full facility operating, it is not always financially feasible. Analytical techniques used to correct sound data for multiple units -- multiple similar sound sources have been used reliable for many years by acoustical engineers and consultants. Also, as described in the preceding paragraph, all conditions, including weather, must come together before the noise test could be run successfully. Once Ameren commits to providing power for X amount of time on a given day, it cannot un-commit just because the weather isn't cooperating for sound tests. The difficulty associated with obtaining sound data on facilities that do not run every day is tremendous. Also, it is highly probable that scheduling three additional test runs, as requested by Mr. Chinn, would not provide weather conditions as favorable to those that fortuitously occurred during the Power

Acoustics and Noise Solutions by Greg Zak testing performed last year. For instance, if the wind is not blowing from east or is not calm, the sound data obtained will not be representative of the maximum sound that could exist on the Realen property. Data other than calm wind or wind from the east would result in totally misleadingly and useless information. Therefore, I believe three additional sets of data may or may not provide anymore useful information regarding the maximum sound from the Ameren Elgin facility. It would all depend on how lucky we were and that is my additional testimony.

MS. McFAWN: Thank you, Mr. Parzych.

HEARING OFFICER KNITTLE: Do you have any additional, additional testimony?

MS. McFAWN: Not at this time, Mr. Knittle, but we do have the questions and answers that you'd like us to provide.

HEARING OFFICER KNITTLE: Why

don't we start with those?

MS. McFAWN: As I understand it, these are the questions from the Board and you were kind enough to direct it to each of our three witnesses. We'll begin with the questions posed to Mr. Smith. I'll read the question and Mr. Smith will read the answer.

THE REPORTER: Could I have a copy of that?

MS. McFAWN: You may.

THE REPORTER: Thank you, Ms. McFawn.

MS. McFAWN: Mr. Smith, the first question is at page one of the Board's questions to us. The questions asked at page one of the Board's questions to us is phrased as follows: You state that Ameren considered the possible noise effect on surrounding community and engaged Power Acoustics, Inc., to conduct a sound survey at various locations, which included existing residential land use. A, please comment on whether Ameren was aware of

the possibility that the parcel of land immediately west of the facility would be rezoned for residential use during the planning or construction phases of the facility.

MR. SMITH: We were not aware of the possibility of rezoning for residential use. The area has been very industrial in nature and the parcel in question was surrounded by mining and industrial activity. Lacking any reason to the contrary, we judged the location as long-term industrial use.

MS. McFAWN: At "B" the Board asks, if Ameren had known that the parcel land would be rezoned as residential prior to construction, would it have been possible to design the facility to meet the Board's class land noise limitations and I presume that means class -- Board's Class A land noise limitations?

MR. SMITH: If we had known that it may be likely for a residential developer to achieve proper zoning and

build residences, we likely would have abandoned our efforts at this location.

HEARING OFFICER KNITTLE: May I interject. I hope this is what you're intending, but if anybody up here has a question based on the response, I think it would be helpful just to get it out as you're giving them instead of coming back to it later.

MR. RAO: Yeah.

HEARING OFFICER KNITTLE: Feel free to jump in.

MR. RAO: Okay.

HEARING OFFICER KNITTLE: I guess that goes for you over there, too, Mr. Sternstein.

MR. STERNSTEIN: Okay.

MR. JOHNSON: Well, then I've got along that line in particular, you testified that you were in charge of the construction phase of this facility. Did that include the decision or at least input into the decision with respect to the location and siting decision?

MR. SMITH: Yes.

MR. JOHNSON: And what types of things -- just generically, what factors does your company consider when making those siting decisions?

MR. SMITH: This is a natural gas fueled plant so we needed a gas pipeline or natural gas source and we were aware of the Horizon pipeline planning to build a line in the transmission corridor. We needed to be able to connect to the electricity grid and ergo Spaulding Road substation was available for that purpose and we needed to have compatible land uses and we judged the site to have all of these factors; industrial nature, having the utilities available. We had rail access, which was also a factor. Rail access was used to deliver the generator and gas turbine components which are very heavy that come in by rail and then transported from the rail siting to the side on special heavy wait -- heavy load type

trucks.

MR. JOHNSON: So the zoning as well as the nature and character of the area, wherever it is you decided to make a siting decision, comes into play?

MR. SMITH: Yes, it does.

MS. McFAWN: Could you, Mr. Smith, tell us the time frame of when Ameren was considering the Elgin site?

MR. SMITH: We began getting interested in building a peaker plant in the Chicago area on the ComEd system in late 1999 and early 2000 and, in fact, we began prospecting for a site in this area in January of 2000.

MS. McFAWN: And do you recall what the zoning was of the property now referred to as the Realen property?

MR. SMITH: Industrial is my understanding.

MS. McFAWN: And at that time it was part of just Cook County, correct?

MR. SMITH: It was unincorporated Cook County, zoned

industrial. We understood the intended use to be a balefill to be operated by the Solid Waste Agency of Northern Cook County.

MS. McFAWN: Thank you.

MR. JOHNSON: You also -- when you talk about unexpected residential development, I think you made it clear that the residential development was unexpected. You then said that you did a sound study when you discovered that the parcel directly to the west of this facility was going to be used for residential purposes. Which of the three -- you had a preliminary sound study done by Mr. Parzych and that was prior to making a siting decision at all, right, that was your first study, is that right, Mr. Parzych?

MR. PARZYCH: That was in November of 2000.

MR. SMITH: I would characterize it as we knew -- we knew we wanted to be in this location -- or we believe we

wanted to be in this location, but we knew we needed to work with the manufacturer to develop equipment to abate noise to meet the Illinois rule. We had some experience with the same type of gas turbines and the Illinois rule at our Gibson City sites and knew that we would need to do something with the exhaust stack and inlet to achieve acceptable limits in the rule.

MR. JOHNSON: Okay. Did you purchase the property at that juncture?

MR. SMITH: We entered into a purchase option agreement with the land owner in September of 2000.

MR. JOHNSON: I'm just trying to get the timing with respect to the initial sound study, your purchase and decision to site the plant there and then the subsequent studies of which there were two more, correct, Mr. Parzych did one in June of '03 and then Mr. Zak one in September?

MR. SMITH: We felt we had an

acceptable sound abatement solution working with Mr. Parzych and Siemens Westinghouse. Between the time we signed the land purchase option in September 2000 and the summer of 2001 we committed to purchase the property and move forward with the project. My recollection is it was July 2001.

MS. McFAWN: And the studies that Member Johnson referred to, the ones that were done this last summer by Power Acoustics, Inc., and by Noise Solutions by Greg Zak in September of this year -- or of 2003, those were subsequent to --

MR. JOHNSON: That was to rezoning.

MS. McFAWN: That was to address the rezoning?

MR. SMITH: Right.

MR. JOHNSON: And since you bring up Gibson City, do you have any other peaker plants in Illinois that are located contiguous to residential property, residentially zoned -- or

actually for our purposes, it's the land use that's most important rather than zoning.

MR. SMITH: Gibson City is a similar situation. They had a partially developed industrial park that the people there were trying to get off the ground and have more businesses located in it. We came in and discussed our plans with the mayor and appropriate planning people and they pointed us to this industrial park, which we liked, it had enough of the factors we look for --

MS. McFAWN: You're talking about Elgin now?

MR. SMITH: I'm talking about Gibson City at this point. So it is a parallel situation and they were happy to have us come in. We connected their utilities and took about 20 acres of their property there and the residences are not contiguous there. I would say that they're not contiguous in Elgin either. We do have all this industrial

property between us and the subdivisions that exist there, but Gibson City was similar they had this industrial park and there was property between us, like, subdivisions or the actual residents that lived in the area and that one went very well. Everybody is very happy with the plant down there in Gibson City. I've had no complaints about anything on that site.

MR. JOHNSON: And you say in Elgin you're not contiguous, but with the exception of, I don't have the one I made the note on it, what's the name of the road?

MS. McFAWN: Gifford?

MR. JOHNSON: Gifford Road, that's the only thing that's a buffer between you and the newly rezoned Realen property?

MR. SMITH: Right. At the time -- I guess I was referring to the time we sited there, there was nothing contiguous.

MR. JOHNSON: I see. You can go ahead. Sorry.

MS. McFAWN: Question No. 2 then, regarding noise emitted from the Ameren facility to Class A land, please clarify whether the proposed site specific regulations are intended to replace only the daytime noise standards under Section 901.102 or both the daytime and nighttime standards?

MR. SMITH: We were trying to address both and I would like to note that the noise measurements were conducted at night and the proposed numerical values represent the night as well as daytime levels.

MS. McFAWN: That were requested.

MR. SMITH: That were requested.

MS. McFAWN: Number three, the Power Acoustics, Inc., November 2000 report states at page three that the units are anticipated to run primarily during daytime hours, but the unit may be

run during nighttime periods as necessary. Please comment on whether the units are being operated during nighttime periods and if so, would it be possible to provide data on the frequency, duration and number of units operating during nighttime period?

MR. SMITH: The majority of run hours are still expected to occur during the daytime hours. At this time, I really cannot give the number of hours the plant will operate during daytime versus nighttime, it's a function of market conditions, weather and what's going on on the ComEd system, but I can add that the IEPA or Illinois EPA air permit limits our operation to 16 percent of the time on an annual basis, so that would be the maximum number of hours that we can operate under that air permit, whether they be day or night.

MR. RAO: Could you --

MR. SMITH: You couldn't hear me over the El? Do you want me to repeat

it?

MR. RAO: Yeah.

MR. SMITH: Okay. The majority of run hours are still expected to occur during daytime hours and at this time, I really cannot give the number of hours the plant will operate during daytime versus nighttime because this is a function of weather, market conditions and the deregulated market and conditions on the ComEd transmission system, but I can add that our -- Illinois EPA air permit limits our operation to 16 percent of the time on an annual basis, so it doesn't matter if we run day or night, we're only going to be able to operate 16 percent of the time in a year.

MR. RAO: When you say 16 percent of the time, what are you referring to?

MR. SMITH: Number of hours in a year.

MR. RAO: Okay.

MR. JOHNSON: But you could do

that all in the summer when people typically need more power than they do in the winter?

MR. SMITH: That is correct.

MR. RAO: So do you keep track of when the plant operated on a day-to-day basis which can tell you whether it's operated during nighttime or daytime?

MR. SMITH: Yes, we keep a log.

MR. RAO: Based on that information, could you tell us, you know, what percentage of the hours it was operating nighttime?

MR. SMITH: Most of the operation that we've had since we went commercial for testing purposes either for equipment guaranteed testing or noise measurement testing. We've had only a limited number of commercial dispatches where there was an economic reason or business reason to run the units to make an electricity sale. Sitting here today, I can't answer your question. I don't

know what that split would be.

MR. RAO: Would it be possible for you to look at your operating data and give us an estimate?

MR. SMITH: I'll try to come up with something for you. I'll have to go back and try to do that.

MS. McFAWN: Mr. Smith, when did you go operational?

MR. SMITH: The fall of 2002.

MS. McFAWN: So you've really been only operational for a little over a year?

MR. SMITH: Right, that is correct.

MS. McFAWN: Has the plant been operated very often?

MR. SMITH: No.

MS. McFAWN: So generally your records of nighttime versus daytime would be rather scant?

MR. SMITH: It would be very limited.

MR. JOHNSON: You clearly hope

to be operating more than you have been in the past?

MR. SMITH: That is correct.

MR. RAO: Along those lines, has Ameren done any future production concerning power generation at the facility, you know, to estimate whether in the future Ameren would be required to generate more power based on the growth in the area?

MR. SMITH: I'm not aware of any studies like that for this site.

MR. RAO: Are there any plans to convert the facility to a base load facility in the future?

MR. SMITH: No. We have no plans to significantly change anything in the plant. It was designed and approved by all the agencies as well as the city of Elgin as a four unit peaker site. Elgin would not allow more units to be added later and we've agreed with that with them.

MR. RAO: And in case if Ameren

decides to, you know, pursue a change in the operation, then you have to go through this whole permitting procedure process with IEPA one more time, am I correct?

MR. SMITH: Yes, that would be correct.

MR. JOHNSON: To exceed 16 percent, you'd have to go through a repermitting process?

MR. SMITH: That is correct.

MR. RAO: Thank you.

MS. McFAWN: Mr. Smith, maybe this is a good time for me to ask you this question.

If you were to make physical changes at the plant to accommodate additional noise abatement equipment, do you think you'd have to go through air permitting again?

MR. SMITH: It would depend on what that modification was. My -- the options that we're talking about like a new stack or a higher stack or a stack in

a different location or a change to the footprint of one of the units would require approvals by the city of Elgin as well as potentially the air permit. Anything with the stack would require an air permit modification and if we would change a location of the stack to move it out further, we would have to remodel the emissions and resubmit that data to IEPA and go through the permit again.

MS. McFAWN: You said that if you were to change the footprint then you would have to return to the city of Elgin for approval?

MR. SMITH: That is correct.

MS. McFAWN: And you might have to change the footprint if you had to move the stack?

MR. SMITH: That's correct.

MS. McFAWN: Or you were to put a secondary enclosure around any of the ducting?

MR. SMITH: Yes.

MR. JOHNSON: Is that road then

-- that's one point of confusion that I've had is Elgin versus Bartlett. Is it -- Bartlett did rezone, correct, and is it just across that street, is -- that's the dividing line between the two --

MR. SMITH: My understanding of the rezoning was to bring the Realen property into the city of Bartlett. It was before that unincorporated.

HEARING OFFICER KNITTLE: It was an annexation.

MR. SMITH: It was an annexation, yes, sir. And Gifford Road is the dividing line between Elgin and Bartlett now, I presume.

MS. McFAWN: Formerly it was unincorporated Cook County. Bartlett annexed it and at the same time rezoned it.

MR. JOHNSON: Do you work out there at the site? I mean, are you there on a regular -

MR. SMITH: On occasion.

MR. JOHNSON: On occasions.

So you've had an opportunity to see the residential development so to speak across the street. Are they building houses now?

MR. SMITH: I haven't been there recently. It's been a number of months since I visited. I don't think they're actually constructing yet.

MS. McFAWN: I was there on December 30th and they are not constructing. There are some impediments currently to their constructing homes there and also they're waiting for the spring season to construct as I understand it and one of the reasons we asked for expedited consideration was to accommodate fewer homeowners.

THE REPORTER: Can I have a minute?

(Brief pause.)

HEARING OFFICER KNITTLE: Mr. Member Johnson, any further questions?

MS. McFAWN: I'll move onto

question No. 4 then. At page four the estimated cost of noise abatement measures for all the four units is listed as $11,650,000. A, please clarify whether the cost of noise abatement is an add-on cost or the turbines are sold with some noise abatement measures as an integral part of the power generation equipment?

MR. SMITH: My answer is, the estimate of $11,650,000 is a combination of equipment supply and installation costs. The units were purchased from Siemens Westinghouse with the Illinois noise regulations in mind. The equipment we installed at the site was provided as part of the equipment supply contract with Siemens Westinghouse. The 11.65 million estimate represents the items installed that were custom designed and supplied specifically for the Elgin Energy Center site. So I suppose I would call them add-on improvements to the equipment.

MR. RAO: So if you wanted to buy the turbines without the noise abatement measures it's possible to get -- you know, buy one at a lower cost?

MR. SMITH: Yes.

MR. RAO: Okay.

MS. McFAWN: If you were to buy the standard equipment for noise abatement, would that be at a lower cost than that specifically designed --

MR. SMITH: Yes.

MS. McFAWN: -- for Elgin? Is that a significantly different cost, if you know offhand?

MR. SMITH: I believe it to be significant and I would represent the $11,650,000 figure as the incremental cost that we spent because of the Elgin site conditions in concert with the Illinois noise rule.

MS. McFAWN: Thank you.

B, comment on whether the noise abatement equipment currently used at the facility was designed specifically for

Ameren's Elgin facility to meet certain noise emission levels specified by Ameren.

MR. SMITH: The noise abatement equipment was designed and supplied specifically to comply with the Illinois noise regulations at the Elgin Energy Center site.

MR. JOHNSON: Based upon the existing at that time land use?

MR. SMITH: That is correct.

MS. McFAWN: What percentage of the overall cost of the facility does the cost of noise abatement measures represent?

MR. SMITH: A little more than 5 percent of the total capital requirements were for the noise abatement systems.

MS. McFAWN: By extrapolation the facility cost over 200 million?

MR. SMITH: Yes, sir.

MS. McFAWN: Number five, at page five of the petition you state that the sound testing would have to be

conducted to determine sound power levels at each sound source. Please clarify whether the equipment manufacturer provides such data. If so, comment on whether such data is based on actual sound testing.

MR. SMITH: Siemens Westinghouse did not provide actual sound testing data at the time our plant was designed and installed. They provided estimated noise emissions from major components to Power Acoustics for use in our noise abatement planning and study work. To my knowledge, Siemens Westinghouse currently uses similar non-specific, non-measured data to customers.

MR. RAO: Is that data that was provide Siemens, is there some kind of a rating for each, you know, piece of equipment that they provide you?

MR. SMITH: My understanding was that we received expected noise level at a distance from that piece of equipment, but there's -- to my knowledge, they've

never used and I've never seen any noise ratings per se. We purchased quite a few combustion turbines in recent years and we've installed a lot of them and no manufacturer that we ever dealt with talked about noise ratings.

MR. RAO: So when you order a turbine, do you include sort of a specification of what noise level that turbine should meet at a certain distance or --

MR. SMITH: Yeah, that would basically be the process of working with the manufacturer.

MR. RAO: Okay.

MS. McFAWN: Question six, at page five you mention that the estimated cost of the detailed sound study does not include the cost of operating the facility for purposes of recording noise measurements. A, would it be possible to provide a general cost estimate for operating the facility for purposes of sound monitoring?

MR. SMITH: Yes.

MR. RAO: David Parzych, I think he answered this question.

MR. SMITH: I would like to clarify just a little bit more if you could bear with me just for a moment. He gave you a substantial part of it in terms of the operating fuel cost, but in addition we would include a start cost on one of the machines of $7,500 and then approximately $8,000 an hour for each machine that would be running at full output and the typical two-hour test for all four units running simultaneously would be $90 to $100,000, assuming that the ComEd system can absorb that much energy at the time of the testing. If not, we would probably incur additional expenses to compensate others for non-economic dispatch of their units.

HEARING OFFICER KNITTLE: Is there a way to know before?

MR. SMITH: Yes. The people that set up our dispatch with ComEd plan

that day ahead or more so we would know a day ahead of time if it was going to cost us that additional amount.

MR. JOHNSON: How did Mr. Zak end up lucky enough to be there when -- or unlucky enough to be there when all four units were operating?

MR. SMITH: We scheduled it, worked out a suitable date for ComEd, we scheduled it for an uneconomic dispatch.

MS. McFAWN: So it was a non-economic dispatch?

MR. SMITH: Yes.

MS. McFAWN: And you scheduled it specifically so that Mr. Zak could come and take the measurements?

MR. SMITH: Yes.

MS. McFAWN: The same with the measurements taken in June 2003 by PAI?

MR. SMITH: I don't recall if that was a --

MS. McFAWN: That was a single unit.

MR. SMITH: It was a single

unit. My recollection is that the scheduling of it was specifically for the sound measurement activities. I do not recall if it was profitable or not.

MR. RAO: So in Mr. Zak's sound survey, Ameren didn't incur all the costs that you mentioned --

MR. SMITH: Yes.

MR. RAO: -- earlier?

MS. McFAWN: The next question is Greg Zak notes that he measured the sound levels while all four peaker units were operating at maximum load. Please comment on whether the units were operated at maximum load for the sole purpose of measuring sound level. I think we've covered that.

MR. SMITH: Yes -- the answer is yes.

MS. McFAWN: Question seven, attachment E to our petition lists the cost of the various noise abatement alternatives in terms of total capital cost. Please provide the cost of the

alternatives in terms of the incremental operating cost.

MR. SMITH: This question was unclear to me.

MR. RAO: Let me clarify it. In table E of -- listed the cost of all the different alternatives of total capital cost, could you give us a better idea as to what this cost means in terms of -- in terms of the operating cost or revenue for Ameren? You know, I was trying to see if you could provide the cost and, you know, what does this means in terms of the incremental cost for Ameren or, you know, what would be the incremental cost that you would charge your consumers?

MR. JOHNSON: It seems that it would vary with the number of hours that the plant ran, that you can't tell us in advance, right?

MR. SMITH: Yes. I would agree with that. What I might be able to do -- what I probably can do is tell you what

the capital investment is costing us on an annual basis and then you could assume that that's money that we would need to receive in order to pay for it.

MR. RAO: That would be helpful to get some handle on the capital costs that are listed here.

MR. SMITH: But to clarify, you do want it on an annual basis --

MR. RAO: Yes.

MR. SMITH: -- a revenue stream?

MS. McFAWN: Can we get back to the Board on that?

MR. RAO: Uh-huh.

MS. McFAWN: Question eight, at page six of the petition regarding the installation of additional exhaust stack silencers for low frequency noise reduction you state that the likely success of this option is small since a large amount of noise reduction is required to comply with the Board's residential standards. Please clarify whether this standard refers to both the

Board's daytime standards or nighttime standards or both.

MR. SMITH: Both.

MS. McFAWN: And B, the next question is, is low frequency noise reduction in the range of five to ten decibels considered a significant reduction?

MR. SMITH: This range of reduction is highly significant and very difficult to achieve at low frequency. In our case in dealing with the Elgin Energy Center, it would be infeasible and technically impossible to reduce the 31.5 Hertz band to ten dB below current existing levels.

MR. RAO: Is that because like Mr. Parzych stated earlier that you already achieved 99.99 percent reduction and it's difficult to go beyond that further reduction or can you elaborate a little more?

MR. PARZYCH: Low frequency has very, very long wave lengths and in order

to get a lot of noise reduction with very, very long wave lengths the silencing materials have to be very thick and they have to be comparable in length to these long wave lengths. The Elgin silencers, exhaust silencers, there's a total length of about 50 feet in there. We believe that we're at the stage now where those silencers have reduced the noise coming out the back of the gas turbine as much as they can before you get to the point where the exhaust gases themselves interacting with the surfaces inside the silencer start creating their own noise. Just like when you open the windows on your car driving down the highway. So that low frequency noise is at this point where it's a very questionable situation that you can get any additional noise reduction by simply increasing the silencing that's on there because of that limitation. The silencer that's on there, the best we can say, it's really -- out of hundreds of plants

that I've seen, the most substantial silencing I've ever seen on a simple cycle gas turbine unit of any brand.

MR. RAO: Along the same lines in considering different measure alternatives, did Ameren consider setbacks or buffer zones as an alternative and, you know, did Ameren explore the option of purchasing Realen property as a means of complying with the board regulations?

MS. McFAWN: Can we consider that as a two-part question --

MR. RAO: Yes.

MS. McFAWN: -- so that we can put it in a relevant time frame?

You asked if we considered buffers or setbacks. I think that Mr. Smith addressed that in the time frame of when we were considering purchasing the property. Do you want to just put -- answer the question in that context again very briefly?

MR. SMITH: Sure. At the time

we selected the site it was an industrial zoned area, including the now Realen property. The understanding was that the Solid Waste Agency was planning on using that property for their purposes and with the industrial nature of the area, the sound improvements that we made to the equipment would be adequate to meet the Illinois noise rules. This particular site, there was not adequate buffer or open land that could have been purchased and it was judged unnecessary at the time.

MS. McFAWN: And could you read the back second part of Mr. Rao's question?

(Whereupon, the requested portion of the record was read accordingly.)

MS. McFAWN: Mr. Rao, if you don't mind, I might just rephrase that a little bit? Again, to put it in a time context. I assume you're asking did we consider it at the time that perhaps

SWANCC or the Solid Waste Agency of Northern Cook County was marketing it? That -- we're not exactly sure when that began?

MR. RAO: The rezoning was when Bartlett was annexed in the land and rezoning. Was there a consideration given to -- you know, purchasing the property as a means of complying?

MS. McFAWN: At that time -- well, actually, we were in compliance with the Board's noise regulations as we are currently, but at that time -- at the rezoning and the annexation, Realen property already owned -- Realen Homes already owned the property. It wasn't on the market so it wasn't a consideration that Ameren could make.

MR. RAO: Thanks.

HEARING OFFICER KNITTLE: Is that sufficient?

MR. RAO: Yeah.

MS. McFAWN: Number nine, at page nine you state a new stack would

require full aerodynamic modeling as well as significant analytical work to ensure that the exhaust system would achieve further noise reduction. Please clarify whether similar modeling and analysis was performed in designing the existing stack.

MR. SMITH: Siemens Westinghouse and their supplier designed the existing stacks. My understanding is that the stack design was developed over a long period of time and was likely based on stacks supplied at similar units by the same suppliers. I do not know whether detailed analytical work was ever done by these manufacturers for us.

MR. RAO: So what you're saying is if you consider installing a new stack then in full aerodynamic modeling needs to be done? Is it done by the manufacturer or is it done by Ameren?

MR. SMITH: It would not be done by us. It would be -- it would have to be done by a sound expert or a fluid flow

expert or someone that's in the business of manufacturing equipment like that. It would not be done by Ameren and typically we -- like gas turbine engine design, we don't design the machines that we buy. We rely on the manufacturers and suppliers to do their own design.

MR. RAO: So if somebody sells you that equipment you would assume that they have done all these modeling studies or do they charge you extra for doing it?

MR. SMITH: Are we talking about the existing equipment?

MR. RAO: No, the new one, if you put in a new stack. I think that's what your testimony said, a new stack would require full aerodynamic modeling as well as significant analytical work, so my question is whether -- is the modeling done as part of the package of supplying you the equipment or is it something that needs to be done --

MR. SMITH: But your question is related to the existing equipment as I

read your question. It says was this performed in designing the existing stack?

MR. RAO: Yes.

MS. McFAWN: But now you'd like to know why the aerodynamic --

MR. RAO: I just want to get it clear in my mind as it's something, you know, additional work that needs to be done when you put in a new one or is it something that comes with the equipment?

MS. McFAWN: So concerning the new one, why did we make that statement?

MR. RAO: Yeah.

MS. McFAWN: Can we have Mr. Parzych address that for you?

MR. PARZYCH: Let me first address the existing stack. I know that Siemens Westinghouse did the analytical work to develop what -- how much silencing they would get from that stack. I do not believe, and I can't speak for Siemens Westinghouse, that they actually made a physical model and did aerodynamic

modeling of that to assure that it wasn't creating a certain amount of aerodynamic noise within the exhaust stack. If Ameren were to go out to the livid number of stack manufacturers there are and ask them to design them a stack that would meet X dB worth of attenuation and individual frequency bands, they could ask them to perform all the analytical studies and any of the aerodynamic modeling, physical or on the computers, CFD type model, and they should be able to actually perform that kind of study with the new design stack.

MR. RAO: Will that add to the cost?

MR. PARZYCH: It depends, I guess, on the level that ends up being done. Probably with the stage of the silencing that they'd be asking for, it might be something that gets added to the cost. Generally analytical things or scale model things are cheap compared to making huge pieces of steel like that, so

the cost of that is -- would be a few percent maybe of the total cost. It's not -- it wouldn't be a tremendously large cost.

MR. RAO: Okay.

MS. McFAWN: For the new stack, wouldn't the aerodynamic modeling have to be more precise because you'd be trying to achieve further reduction than currently --

MR. PARZYCH: Yeah --

MS. McFAWN: -- normally available?

MR. PARZYCH: -- probably you wouldn't rely strictly on like a CFD analysis, you would build after the design was done analytically and a CFD model was made, the likelihood would be the resulting design -- a physical model would be made and tested in some wind tunnel, for instance, to determine that the aerodynamics are working as expected.

MS. McFAWN: And would that be a costly proposition?

MR. PARZYCH: Again, relative to the cost of physically buying the stacks and the manufacturing of these large stacks, it would be a small percentage. I can't say exactly what it would be. It would be depending on the level of detail that went into the model.

MS. McFAWN: Okay. Question ten, please comment on whether degradation of turbine performance as a result of a new stack is also due to increased back pressure.

MR. SMITH: Back pressure would be a chief contributor to degraded performance. It would affect efficiency as well as capacity and it seems possible to me that the flow and acoustic patterns could be problematic for the combustion process. Another feature that we purchased for these machines was dry low Knox burners which are also state of the art and they are delicate and require tuning and attention and it seems conceivable to me based on our experience

at given the unit's condition that disturbances in the downstream flow could be problematic for these devices.

MS. McFAWN: A question before we go on, would that require additional air permitting since you might have to address again the Knox burners?

MR. SMITH: If we have to address the low Knox burners, we would have to do something with the air permit.

MS. McFAWN: The next part of the Board's question is please explain the necessary design criteria -- please explain what the necessary design criteria are in the context of the proposed rulemaking?

MR. SMITH: Well, the design criteria would be the levels of sound emissions necessary to achieve the levels in the rule. The manufacturer has stated to us on several occasions during the procurement and design of our combustion turbine equipment that they had never ever supplied such extensive noise

abatement for other customers and that our equipment was state of the art.

MS. McFAWN: Also comment on whether a gas turbine exhaust stack meeting the design criteria is available in any other country.

MR. SMITH: To my knowledge there are none.

MR. RAO: This is just a clarification question, you said in the U.S. it's not available --

MR. SMITH: We're not aware of any anywhere.

MS. McFAWN: Question 12, please explain how the active noise control system reduces low frequency sound levels. Are you aware of any gas turbine power generation facility that utilizes an active noise control system?

MR. SMITH: And my understanding of the concept is that it would provide cancellation of the undesirable sound waves with an out-of-phase sound and that both sets of sound waves would consider

each other. I am not aware of any combustion turbine power generation facilities with this type of a system.

MR. RAO: Is NASA marketing this technology or is it just out there?

MR. PARZYCH: There's a company that's worked with NASA under contract to develop an active noise control system that would be applicable to a hot gas application. Most systems to this point in time have been worked in ambient temperature, room temperature air. It's a trick to get transducers that produce sound into a hot gas environment without burning them up and a company exists that has been working on doing just that and they have situations where they have shown that they can cancel low frequency noise in a hot gas environment, but it hasn't been applied to a large gas turbine unit like this. It's been strictly done on an experimental basis.

MR. RAO: Thank you.

MS. McFAWN: At page seven you

state that a relatively short section of the inlet silencing may provide noise reduction only if the inlet system is found to be a significant sound source at higher frequencies. Please clarify whether it is possible to identify the significant sources of the high frequency noise based on the sound power levels provided by the equipment manufacturer.

MR. SMITH: The information that was provided to us by Siemens Westinghouse during the project was based on either their prior experience with existing similar units or their analytical calculations. The individual equipment sound sources have not been defined specifically for the equipment that we have at the Elgin site and it would be extremely difficult and probably a waste of time to try to do that at this point with, you know, the installed facility.

MR. RAO: You mentioned in your detailed noise study that I think -- let

me go back to your testimony just a minute. You stated at page five of your prefiled testimony that sound testing would have to be conducted to determine the octave band sound power levels of each sound source, that is the gas turbine, inlet system, exhaust system, generator, transformer or coolers. Can you explain why you made the statement you think that that kind of information is not going to be very helpful?

MR. SMITH: I don't think doing a detailed sound evaluation would be helpful primarily because we have equipment sitting there in the conditions that you've already seen, you know, the heavy industrial activity, the insect noise, the ambient conditions are so variable, so to take the time and effort to try to do this very detailed highly prescriptive type study, I don't believe is going to change anything. I don't think it's going to give us a result that

anyone can work with to come out with some fancy solution that will somehow get us in compliance with the existing regulations with Realen Homes being built, so that's really my point. I don't really think there's much point to it, in my opinions.

MR. RAO: Okay.

MS. McFAWN: Please explain the reasons for concluding that additional inlet silencing and additional ducting enclosure would have little positive effect on the overall sound emissions from the site. This might also address some of your other questions, Mr. Rao.

MR. SMITH: I think this helps to articulate the reason I just gave you for the last question you asked me. We recently realized that our inlet silencer is actually 12 feet long, not eight. We understand the industry standard is more or less eight feet, but, again, we put an additional four feet of silencing in. At 12 feet the inlet silencer should be well

into the peak 50 to 60 dB reduction that is attainable with silencing panels of this type and ducting that we currently have. Therefore, simply extending the inlet silencer should have little benefit, if any, in reducing the sound beyond the current levels. As for the ducking, in our opinion, the lagging already present in the ducting is the very best that we could obtain for this purpose. We believe that the current lagging and 12 feet of silencers could not be improved upon to sufficiently reduce noise beyond the current levels to levels necessary to meet the Board's residential limits once they become applicable to the Realen property. Likewise, we do not believe that a secondary enclosure around the ducting would reduce the current noise level to achieve compliance with the residential levels. Furthermore, such an improvement would require its own support system and may not be technically feasible or

economically reasonable to add on to the existing equipment.

MS. McFAWN: Could we take a five-minute break?

HEARING OFFICER KNITTLE: Sure. Let's go off for a second.

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

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

HEARING OFFICER KNITTLE: Let's get back on the record and we're continuing with the Board's questions that were previously asked of Ameren and I think we're finished with Mr. Smith, correct? I thought Joel would be chiming in as --

MR. STERNSTEIN: Should we ask our questions of Mr. Smith?

MR. JOHNSON: Why don't you ask your questions of Mr. Smith so he can relax after you're done?

MR. STERNSTEIN: I have a few here. Mr. Smith, with respect to the cost estimates that you provided for the various noise control options, I believe we're calling that Exhibit 6, were those prepared internally at Ameren or were those prepared by a consultant?

MR. SMITH: Referring to attachment E, is that correct?

MR. STERNSTEIN: That's correct.

MR. SMITH: These numbers were developed in concert with Mr. Parzych and my internal staff.

MR. JOHNSON: Those are the estimates that you said that they could be as much as 25 percent less than the amount in the exhibit or 75 percent more, that's your range?

MR. SMITH: That's what I said earlier today, yes.

MR. STERNSTEIN: Mr. Smith, you also showed us a series of photos earlier in the hearing today. You had said that one of those photos was taken early in

the morning. What time of day were the remaining photos taken?

MS. McFAWN: Actually, I was with -- out there at the time that the photos were taken. They were taken on December 30th and we started taking the photos at approximately noon.

MR. STERNSTEIN: And what time did you finish taking the photos if you remember, Marili?

MS. McFAWN: I think it took us like an hour.

MR. STERNSTEIN: Actually, Mr. Chinn had a follow-up question on those photos. Go ahead.

MR. CHINN: I don't remember seeing any slides of the area to the east where in attachment A2 it's indicated in yellow.

MS. McFAWN: That's correct. There are no pictures of that area. That is an area east -- wait a minute. I need to look at attachment two. I don't have a color version. This is attachment A2.

Okay. We're looking at attachment A2 right now and, Mr. Chinn, you've asked us about the yellow area over here, which would actually be to the far east, is that correct?

MR. CHINN: It's east.

MS. McFAWN: Okay. And the reason there's no pictures of that area is that they are really not contiguous in terms of space or as I understand it noise because in between the Ameren facility where this -- what you saw in the slides was the BFI Weigh System, the rail lines, the transmission lines and the gas pipeline, so that area -- it's maybe hard to determine based on this map, is really quite a distance from the Ameren facility.

MR. JOHNSON: That's a residential area, correct?

MR. SMITH: That is correct.

MR. JOHNSON: Would it have been the one that you pointed out that Member Moore asked about.

MS. McFAWN: Exactly. You can see --

MR. SMITH: No.

MS. McFAWN: No?

MR. RAO: That goes northeast.

MR. SMITH: That was northeast which would be north of the yellow area on exhibit -- or rather attachment A2, that would have been up here (phonetic) she asked about.

MS. McFAWN: Mr. Smith is indicating that those would have been in the white area on the northeast part of attachment A2.

MR. CHINN: So the answer is no?

MR. SMITH: Well, I don't know that it's no. This -- there were pictures taken that we showed to you today in the direction of the yellow area, but what you saw between our site and the yellow area was BFI, railroad tracks, transmission lines and so forth.

MR. CHINN: Okay. Out of the 50 slides, I don't remember seeing a

photograph of any residential area?

MS. McFAWN: You are correct. There were none taken specifically of that area.

MR. CHINN: Thank you.

MR. STERNSTEIN: Ms. McFawn, one follow-up question on the photos. Who took those photos?

MS. McFAWN: We hired a photographer, Jim Fogarty, to take our photos.

MR. STERNSTEIN: Is he employed by Ameren?

MS. McFAWN: No, he is not.

MR. JOHNSON: Let me clarify then because I'm confused. You did take photographs from the Ameren site facing to the east, correct?

MS. McFAWN: That's correct.

MR. JOHNSON: And so the residential area indicated by Mr. Chinn in the east and on the other side of BFI Weigh Systems would have been in the photos, but in the far distance, is that

correct?

MR. SMITH: That is correct.

MS. McFAWN: If we were to zoom in, they might show up, but they are quite a distance away and that's what I meant when I said they were not specifically taken of that area.

MR. STERNSTEIN: Mr. Smith, one more question. Was the option of constructing an earthen mound or earthen berm ever considered and that would be putting the berm or mound in between the peaker units at Ameren and the newly designated residential area on the other side of Gifford Road.

MS. McFAWN: We're going to have someone else answer that for you.

MR. STERNSTEIN: That's fine.

MR. PARZYCH: The way that berms work is the same as the way a barrier wall works. You put the -- you put something up and you try to block the line of sight to the equipment. A berm could block the line of sight to the

equipment if it's very close to the equipment or very close to the receivers. It would work best if you could put it very close to the receivers because the equipment is so tall that you would need a 50-foot tall berm to block the line of sight to it. So in order to block the line of sight near the facility on the property, the berm would have to be a huge, huge mound that would be 50 feet or so tall to block the line of sight to the Realen property. If they could put a berm on the Realen property then -- because the berm -- well, for instance, if I'm sitting in this chair, a berm that's five feet high would block my sight to anything that would be in that area because it's -- so, in order to make that berm effectively it really needs to be on the Realen property.

MR. STERNSTEIN: Okay. Has the option of constructing some sort of a berm ever been discussed with -- between Ameren and Realen?

MR. SMITH: I recall a discussion of their site plan with Realen representatives and that they had plans of some berms as I recall to sort of hide their subdivision from Gifford Road. I don't recall anything of the magnitude that Mr. Parzych just described to you.

MR. STERNSTEIN: In other words, the discussions didn't focus on blocking a line of sight from the top of the homes to the peaker facility -- to the peaker unit?

MR. SMITH: Well, I think we did have a discussion like that. I don't recall it being given serious discussion, though.

MR. STERNSTEIN: Okay. It never moved to the point of actually talking about the costs of constructing the berm or anything of that nature?

MR. SMITH: Not that I remember.

MS. McFAWN: If I could ask a follow-up question on that.

MR. STERNSTEIN: Sure.

MS. McFAWN: Mr. Smith, some public comments have been filed with the Pollution Control Board and I believe one of those was from Realen. If you could just explain -- you haven't seen it probably recently, but -- I have them here. Well, I thought I brought it, but I didn't bring it with me. When we've had discussions with Realen, are they in support of our petition?

MR. SMITH: Yes. Realen is in support and my understanding is that they were going to submit a letter to the Board stating that support.

MS. McFAWN: Mr. Knittle, do you know if that's in the public record now?

HEARING OFFICER KNITTLE: I don't have the docket sheet in front of me. I tend to recall that a public comment was filed, but I couldn't say that for sure. If it is filed, you know, it's something the board will consider.

MS. McFAWN: We were copied by Realen on that letter.

HEARING OFFICER KNITTLE: I think something came in at the end of December.

MR. RAO: So you have had discussions with Realen Property about the proposed rulemaking to change the noise standards?

MS. McFAWN: Yes, we have.

MR. RAO: Do you know if Realen is also providing information to potential homeowners of this information?

MS. McFAWN: I do not know the answer to that, but it could be part of the reason they're not right currently in a construction phase.

MR. STERNSTEIN: That's all I have for Mr. Smith. Howard, do you have anything?

MR. CHINN: Mr. Smith, was an engineering specification prepared for the acquisition or purchase of this site and the equipment in particular?

MR. SMITH: There's really two parts to your question, I think. For the

purchase of a site that was a real estate transaction and there was no specification. For the purchase of equipment there was a technical specification that was written by a consulting engineer company, Burns & McDonald of Kansas City, Missouri. The specific discussions with Siemens Westinghouse over noise engineering issues and site design and so forth would have been held between Sergeant Lundy and Siemens Westinghouse and there would have been a specification regarding those matters as the project developed.

MR. CHINN: So it would have been Sergeant Lundy who would have prepared the specifications for the plant?

MR. SMITH: Yes.

MR. CHINN: Are those in your possession?

MR. SMITH: Not here today.

MR. CHINN: Is it under your control?

MR. SMITH: We should have copies of those specifications in the file.

MR. CHINN: I see.

MR. SMITH: In the project file.

MR. CHINN: There had been some discussion about changing or modifying or adding on to the inlet stack and outlet stack and there was some comments about restriction in air flow and back pressure. Does the restrictions in air flow and back pressure contingent upon the velocity in the duct?

MR. JOHNSON: The velocity, what?

MR. CHINN: The velocity, the speed.

MR. PARZYCH: I mean, basic fluid mechanics tells you that, you know, pressure drop is a function of a number of things and velocity could be one of them.

MR. CHINN: And the other would be the design of the duct work?

MR. PARZYCH: Pressure drop would be dependent on design of duct work, yes?

MR. CHINN: In your Exhibit 4, attachment C, there is shown an inlet filter, inlet silencer, inlet manifold. How does the combustion turbine get its combustion air?

MR. SMITH: Would you like for me to refer to attachment C? Is that the -- to clarify attachment C?

MR. CHINN: If you need to.

MR. CHINN: Well, attachment C shows the major components that we're talking about. There is a compressor in the combustion turbine, which draws air in through the inlet filter device, which then flows through the inlet silencer, that air then enters the inlet manifold and then enters the suction side of the compressor, so that's basically how it's done.

MR. CHINN: The compressor compresses the air and forces it into the

combustion turbine?

MR. SMITH: The compressor -- yes. The compressor would compress the air and blow it -- essentially into the combustion section of the turbine.

MR. CHIN: Which is your combustion air?

MR. SMITH: It's all combustion air.

MR. CHINN: So your back pressure is dependent upon the outlet pressure of the compressor?

MR. SMITH: There is a suction pressure, which is important for performance issues, which is the dependent on the resistance of flow through the inlet filter, the inlet silencer, inlet manifold into the compressor. That compressor efficiency is dependent upon how low that pressure has to go to get the required air flow. The back pressure is actually on the other end of the system which affects the exhaust from the gas turbine.

MR. CHINN: Do you have the specifications for the exhaust stack and silencer?

MR. SMITH: No.

MR. CHINN: Not on you today?

MR. SMITH: No.

MR. CHINN: Do you have the specifications for the inlet filter and inlet silencer?

MR. SMITH: These devices that you're referring to were supplied by Siemens Westinghouse as we've mentioned before a couple of times and typically from a manufacturer we would not receive specifications per se. We would get some descriptive information that we would need to perform certain maintenance functions on the equipment, but not what I would call specifications.

MR. CHINN: Have you been provided with any data on what the sound level would be without the inlet silencer?

MR. SMITH: I'll defer that to

Mr. Parzych if that's okay with you? I don't recall seeing information like that during design of these units working with Siemens Westinghouse.

MR. CHINN: Similarly, that would go true for the exhaust stack and silencer?

MR. PARZYCH: They, for this particular project, did not provide the unsilenced sound power levels that would be emitted by the machine. They provided the silenced sound power levels of them radiating from either the surfaces of the equipment or being emitted from the orifices of the equipment, such as the top of the stack or the front of the filter bases of the inlet system.

MR CHINN: I see. You indicated that to make the exhaust stack and silencer longer may be problematical because of the back pressure potentially? Again, the back pressure would be also influenced by the velocity and the configuration of the silencer, not

necessarily solely on the length?

MR. PARZYCH: That's true except that you do have frictional losses along the surfaces of the silencer, which are a perforated metal plate, and that is dependent on the length of the silencer, just like if you had a 50-foot long hose versus 100-long hose, the 100-foot long hose at the end is going to have less pressure than a 50-foot long hose.

MR. CHINN: And there would be difference between the half-inch diameter of hose and a one-inch diameter hose?

MR. PARZYCH: That is true.

MR. CHINN: Thank you.

HEARING OFFICER KNITTLE: Any further questions from the Attorney General's Office at this time?

MR. STERNSTEIN: I have a couple for Mr. Zak, but I'll wait until --

HEARING OFFICER KNITTLE: You can wait until we get to Mr. Zak. All right. Let's go back to the Board questions then if we could and,

Ms. McFawn, whenever you are ready.

MS. McFAWN: Mr. Parzych, the first question the Board has proposed is at page 12 of the June 2003 report it is stated that the ambient at several locations exceed Board's noise standards. Please clarify whether the ambient measurements were obtained by excluding extraneous sounds?

MR. PARZYCH: Yes, we did exclude the extraneous sounds.

MS. McFAWN: Question No. 2, at page 14 of that report it appears that a large number of indeterminate values in table eight resulted due to the applicable of ambient correction prior to the full facility, that is four units operational, extrapolation. Please explain why the ambient correction was made prior to the full facility extrapolation.

MR. PARZYCH: The ambient must be extracted from the sound measurements before any extrapolations are made to

multiple units since the measured operational sound levels includes both the single unit operation sound plus the existing ambient sound. So in other words, if the total sound level consists of one ambient sound level, plus one gas turbine package, one ambient sound level must be subtracted from the total to obtain the sound level of one gas turbine package. If we were to extrapolate the total sound to four units first, we would artificially introduce four ambient sound levels in the total. From this, only one ambient sound level would be subtracted. It is therefore technically incorrect to perform the correction in that fashion since the extrapolated sound level data would then include three ambient sound levels plus four gas turbines. We have to keep in mind that our objective is to determine the sound from the gas turbines without the ambient.

MR. JOHNSON: The decibel levels in that instance would have been

significantly higher than what your -- what page 14 reported, right?

MR. PARZYCH: That's correct. And we could give you a hypothetical example if you'd like that we've put together here.

MR. RAO: Yeah.

MR. JOHNSON: Anand's concern was that the ambient sound level was taken out four times rather than once and I think you've sufficiently explained why you do it that way.

MR. RAO: Also, can you give an example?

MR. PARZYCH: Sure. Let's first make the assumption that a gas turbine's true sound pressure level at some given frequency is equal to 60 dB and the ambient same level at that same frequency is equal to 70 dB. The ambient sound level would totally mask the sound from the gas turbine and the sound would be indeterminate. In this case, the true sound level from four operating gas

turbines would be 66 dB. Basically, it's ten times the log of four units is a correction of six dB, six dB plus six dB equals 66. If we use the total sound data to extrapolate to four units, we would add six dB to the 70 dB ambient sound resulting in 76 dB. Please note that the 76 dB is representative of four ambient sound levels. The ambient sound level we defined as being 70 dB. So it's not even slightly representative of any noise generated by the gas turbines in this example. If we now subtract the single ambient we're left 74.7 dB and clearly, 74.7 is not representative of the sound from the four gas turbines which we have shown in this example to be equal to 66 dB.

MR. RAO: It could work the other way too, right? If with a single turbine, if it was 60 dB and the ambient was 61, you apply the correction and it becomes indeterminate right there?

MR. PARZYCH: Uh-huh.

MR. RAO: But if you add six dB to 60 it would be 66 with four and then you apply the correction?

MR. PARZYCH: Yeah --

MR. RAO: That's why I thought this whole -- applying this correction itself was not a very appropriate way to --

MR. PARZYCH: It's 100 percent technically the only way to do it.

MR. RAO: I know, but it can work both ways is what I'm saying. If you use -- however, you use the example is --

MR. PARZYCH: I think the -- you have to realize that when you take the measurement of sound of a gas turbine in the presence of an ambient, you have one ambient and one gas turbine equals total sound level. So total sound level then minus one ambient sound level equals one gas turbine. Unfortunately, sometimes it puts you in the position where immediately you are in an indeterminate

situation.

MR. RAO: Yeah.

MR. PARZYCH: But that's the real situation unfortunately. The only way that you could get around that potentially would be to bring the operating levels up, which would mean operating all four units and not --

MR. RAO: Looking at this table it's hard to say, you know, how many of these indeterminates were those where the ambient was very close to the single unit operation where you got those indeterminates.

MR. PARZYCH: And the answer is, you can't tell if it's indeterminate.

MR. RAO: You know, it's hard to say. It merely reflects what's going on.

MR. JOHNSON: The site change in the rule that you asked for, the change in the decibel levels for the different Hertz levels is what you can live with and what you would feel comfortable -- if the rule was changed to reflect your

request, you would feel comfortable having one of the residents at the Realen property to stand there with a decibel meter and measurer the sound coming from your facility and you would then be within the limits, right?

MR. SMITH: Uh-huh.

HEARING OFFICER KNITTLE: You guys, you have to say yes or no as opposed to nodding or she can't get your response. I saw two people nodding, but I --

MS. McFAWN: You can both answer, the expert and --

MR. JOHNSON: I guess I assumed you wouldn't be asking for a decibel level that is going to be lower than what you're actually producing because why would we sitting here if that's the case? You're asking for what it is that you think that you'll be able to live with the Class C, the Class A if we change those levels to meet your request?

MS. McFAWN: That's correct.

MR. SMITH: Correct.

MR. RAO: My question here was just to make sure what you did here was appropriate because in the July 2003 sound measurement you did use this data to back up your sound power level so I just wanted to make sure, you know, the results you got with this extrapolation is, you know, what you can live with?

MR. PARZYCH: Yeah, it is.

HEARING OFFICER KNITTLE: Is that sufficient, Anand?

MR. RAO: Yeah.

MS. McFAWN: I have to ask him one question just to make sure.

(Brief pause.)

MS. McFAWN: Mr. Rao, you asked us if we could live with the levels. Were you asking us about the levels we were proposed?

MR. RAO: Yes.

MS. McFAWN: I just wanted to clarify that. Thank you.

This would be question 2(b) of

the Board's questions and it would be, please comment on whether making the correction for ambient after estimating the sound levels for four unit operation would have resulted in a large number of indeterminate values used in table eight leading to the assumption that the facility is compliant if sound level value is indeterminate.

MR. PARZYCH: Again, the extrapolation as suggested would provide technically incorrect information and it really would be useless in meaning.

MS. McFAWN: Do you mean the extrapolation as suggested by the Board?

MR. PARZYCH: Correct. By correcting the total sound level for four unit operation.

MR. JOHNSON: That was the tech unit, that was not the Board. The good questions the Board came up with.

MS. McFAWN: C, also comment on whether any of the estimated values other than those at locations at Realen property

would exceed the Board's property line noise standards if full facility extrapolation was made prior to ambient correction.

MR. PARZYCH: And our answer again, you really can't do the full facility extrapolation first using the total noise. It needed to be done the way it was done.

MS. McFAWN: Question No. 3 from the Board, please explain why the sound power levels provided by Westinghouse was not used instead of the estimated sound power levels in the sound propagation analysis done in July 2003.

MR. PARZYCH: Because we had the opportunity to measure the actual sound levels of the facility. The actual sound from the facility, as its installed, could be more reliable than the manufacturer's data, which was initially based on Siemens Westinghouse design calculations or data Siemens Westinghouse had from equipment at other installations.

Also, it accounts for any degradation or changes in the equipment sound levels from when it was originally purchased.

MS. McFAWN: Question four, at page four you state that the gas turbines at the Ameren facility contain the largest amount of sound abatement supplied by Siemens Westinghouse for simple cycled 501D5A gas turbines. Please comment on whether the turbine manufacturer usually provides noise abatement measures.

MR. PARZYCH: The answer is yes. Siemens Westinghouse typically provides inlet and exhaust silencing and enclosures for its gas turbines and generators. Siemens Westinghouse generally provides more standard noise control features than their competitors such as G.E. on similarly sized units and for example, a standard Siemens Westinghouse 501D5 unit, Siemens Westinghouse would quote as achieving 63 dB(A) or less at 400 feet while a

standard G.E. frame 7E would typically be quoted as achieving 65 dB(A) or less at 400 feet in a standard configuration. Question become.

MS. McFAWN: Question "B" is, is it possible to retrofit a gas turbine with noise abatement equipment not made by the turbine manufacturer?

MR. PARZYCH: And the answer is yes. Silencing can be added to the equipment by the owners.

HEARING OFFICER KNITTLE: Can I have a second?

(Brief pause.)

HEARING OFFICER KNITTLE: I'm sorry.

MS. McFAWN: That's okay. We're done chatting. If you're ready to go on.

MS. McFAWN: We're just using the time to --

HEARING OFFICER KNITTLE: No. Have at it if you need some additional time.

MS. McFAWN: Question C, in your

experience in dealing with similar gas turbines manufactured by companies other than Siemens Westinghouse facilities, have you come across noise abatement measures in excess of what is used at the Ameren facility?

MR. PARZYCH: Not on the exhaust end of the equipment. For example, a substantially upgraded G.E. exhaust silencer consists of 16 feet of low frequency silencing and four feet of high frequency silencing, 20 feet in total length. The Siemens Westinghouse exhaust silencer at the Elgin site is approximately 50 feet in total length and it's a huge silencer and you have to keep in mind that the exhaust is the most difficult noise source in gas turbines to control because of its low frequency components. As far as the remaining equipment supplied by the gas turbine manufacturers, the sound treatments are essentially the same. Gas turbine enclosures are acoustically insulated

steel plate, they have air intake silencers and they are virtually identical in the design. Fin-fan coolers are purchased from the same group of vendors and produce about the same sound levels. Note, however that the Ameren units, they purchased and installed 12 feet of air intake silencers versus the standard eight feet long silencers, which are typically used in standard applications.

MS. McFAWN: That does conclude the questions you submitted.

MR. STERNSTEIN: I have nothing for Mr. Parzych. Howard, do you have anything?

MR. CHINN: No.

MR. STERNSTEIN: I guess we can go on to Mr. Zak.

MS. McFAWN: The questions the Board proposed to Greg Zak are as follows: At page three of your testimony you state that one of the primary sources of ambient noise was the U.S. Can

facility located south of Ameren and that the type of noise emitted from the U.S. Can are the kind that mask or even drown out the noise from the Ameren facility. There's really not a question posed, but we do have a comment.

MR. RAO: If you go down to subsection (a) -

MS. McFAWN: Did I miss it?

MR. RAO: Yeah.

MS. McFAWN: Please clarify whether the noise from U.S. Can is reflected in the ambient measurement.

MR. ZAK: Yes.

MS. McFAWN: And then B, if so, please explain how the noise from U.S. Can facility masks and drowns out the noise from the Ameren facility.
Mr. Zak, when you answer this one, perhaps you could refer to the comment that we just went over.

MR. ZAK: It doesn't and I'd like to refer -- I'd like to explain that. While I referred the U.S. Can

facility as a primary source of ambient noise, I did not state that the type of noise emitted from U.S. Can is the kind that masks and even drowns out the noise from the Ameren facility. U.S. Can generated little or no extraneous noise while we were there.

Appearing at the bottom of page three of my prefiled testimony I stated the following regarding extraneous noise: These extraneous noises are the type that mask and even drown out the noise from the facility. The confusion can be alleviated by relocating the last sentence on page three just after the explanation of extraneous sound noise on page four. That should clarify that issue.

MS. McFAWN: I hope that helps. We realize by your question that there had been a typo, an editorial correction that we needed to make to Mr. Zak's prefiled testimony.

MR. RAO: The way I read

Mr. Zak's prefiled testimony was that U.S. Can was a source of extraneous sounds and that's why I was trying to get a handle on, you know, what the nature of the sound emitted by U.S. Can was.

HEARING OFFICER KNITTLE: But at this point you're comfortable in the explanation?

MR. RAO: Yes.

MS. McFAWN: And we have answered that --

MR. RAO: What you are saying is the extraneous sounds are the ones that mask the sound from Ameren's facility not the sounds from U.S. Can?

MR. ZAK: That's correct, the jet overflights and passbys on the road were the types of sounds that would mask, cover up, overwhelm the sound we heard from the Ameren facility when we were out taking our measurements. We would -- at times we couldn't even hear Ameren due to a jet. I would kind of draw the Board's attention as we're in the room here

listening to the El going by and periodically we hear the El going by, it tends to just overwhelm whatever we're doing in this room here and that's the same experience we had when we were measuring the Ameren facility when we had a jet fly over or a truck go by on the road.

MS. McFAWN: And that's extraneous noise, correct?

MR. ZAK: That's correct.

MS. McFAWN: Question No. 2, at page six you state that the comparison of the proposed site specific noise emission limitations with the Board's current limits demonstrate that the proposed limitations are not significant. Please clarify whether your conclusion applies to both the standards for sound emitted from Class C to Class A land, which is in Section 901.102 of the Board's regulations and Class C to Class B receiving land, which is in Section 901.103.

MR. ZAK: My conclusion is that it does apply to both.

MS. McFAWN: And their next question is please explain what not significant means in the context of comparing sound levels considering that the proposed limits for Class A land are higher than the Board's daytime noise limits by five decibels at the 31.5 Hertz and six decibels at the 1,000 Hertz and 11 decibels at 2,000 Hertz and seven decibels at 4,000 Hertz.

MR. ZAK: The presence of extraneous noise in the heavily industrialized area around the Elgin Ameren facility dominates the area in the 31.5 Hertz, 1,000 Hertz and 2,000 Hertz octave bands so as to mask sound emissions from Ameren at these frequencies. I would also note at 4,000 Hertz, insect noise, our ambient source of noise in this case, was found to override sound emissions from Ameren.

MR. RAO: Mr. Zak, regarding

this issue of extraneous sounds, the noise data that you summarized in table one attached to your prefiled testimony, you list what the ambient sound levels are, which have been -- you know, which do not reflect the extraneous sounds. Is it possible for you to give us sound data with the extraneous sounds so we can see what those levels are?

MR. ZAK: We don't currently have it. What we did when we performed the measurements of both the ambient back in the area and Ameren in that area was to carefully exclude the extraneous noise. By excluding it we didn't measure it. The only characterization we can have for the extraneous sound is to describe what we actually heard when we were taking the measurement and that was that when we did have the presence of extraneous noise such as again overflights by jet aircraft, passbys on the road would be to say that we couldn't hear with our ears Ameren at that time,

which would be a pretty good indicator that the extraneous sound was approaching ten decibels higher in level than any sound from Ameren and the reason I can say that is typically from an acoustic standpoint whenever you're reaching a level that's about ten decibels higher than what you're listening to and the sound you're trying to listen to fades out, it's about a ten decibel difference. So, again, we would estimate that the levels could -- those levels could exceed the ambient and Ameren by up to ten dB.

MS. McFAWN: Do you exclude those from your measurements for any particular reason?

MR. ZAK: Yes. As part of the measurement procedures that we've been following for the -- back even when I worked for Illinois EPA and also for all measurements before the Pollution Control Board is we exclude extraneous sound and that's typically done not only for measurements before the Pollution Control

Board, but measurements in general it is usually done.

HEARING OFFICER KNITTLE: Don't you have to quantify before you exclude or wouldn't you have to measure -- and I don't know -- it would seem to me you would have to measure them before you exclude them?

MR. ZAK: Outside of Illinois sometimes that's done and Mr. Parzych has had a lot of experience --

HEARING OFFICER KNITTLE: I understand. I meant more in a practical sense when you're conducting the measurements that you're there, wouldn't you -- when you're excluding something, does that mean you have to quantify it?

MR. ZAK: Perhaps it would help if I explain what we do. What we basically do is we actually stop the analysis momentarily so the instrumentation doesn't pick up this large surge of energy coming in. What will happen is it will, in essence,

overload the instrumentation, all the octave bands will be overloaded with a large level of sound. It will saturate the instrument so what we would do is, again, stop the analysis very, very briefly until the overflight is passed. Once the jet is passed then we go ahead and start the instrumentation again and then continue the measurement. So, no, we don't have a measurement of the actual -- how loud the extraneous sound was. The other thing we -- we could do it. What we would have to do there also would be to raise the sound window that we're looking at to a higher level. If we raise it at the top, we also raise the bottom. By raising it at the bottom then we can't see some of the quieter sounds that we would typically see on the analyzer, so that's one of the trade offs you have is what we call dynamic range in that you have a certain window of dynamic range. In order to measure extraneous sound you would have to raise your window

up much higher, which would then exclude some of the lower -- some of the data of the quieter background, especially in the ambient where you've got some very quiet areas in the ambient. What we would see there is really a false reading of the -- what we call the noise floor in the instrument and not really the true level that's present in the environment.

MR. RAO: Where I was coming from was that you said that this extraneous sound so dominates in the area that it masks the sound from the facility, then would you still consider all these sounds in the area extraneous or is it part of the ambient, like for example, if you're measuring sound in this room, every ten seconds a train is passing by, would you consider that as part of the ambient or do you exclude it if you're measuring the ambient, you know, that's what --

MR. JOHNSON: Shay Stadium.

MR. ZAK: What we would do in a

case like that is we would exclude that as an extraneous sound. There's part of a rationale behind that.

HEARING OFFICER KNITTLE: It's not due to any ambient sound at all? It's not due to any ambient measurements --

MR. ZAK: That's correct. And part of the rationale -- by getting into the rationale is very brief. For example, let's say -- take the El as a perfect example. Why would we exclude that? It's an unregulated sound. Who regulates the El? Well, in Illinois we don't really regulate the sound from the El. We can't control it. The controls are really not there. To record that sound really does us no good and it's much the same situation we have when we're measuring the ambient in the background around the Ameren facility. If we were to measure the extraneous sound and actually have it there, the numbers would be much higher than the

numbers we measured. We would see -- for example, we might see 75 dB(a) for the ambient, 75 dB(a) for Ameren and 75 dB(a) for the extraneous sound. In other words, the extraneous sound so dominates that industrialized area there that it would be the only number we would see, whether we were measuring ambient, Ameren or extraneous sound. Again, when we were taking our measurements our charge was not to measure the extraneous sound. We could have done that if that was part of the goal at the time, which it wasn't, to measure and get actual -- quantify what the extraneous sound was, that could have been done.

MR. RAO: Yeah. It could have helped us to know, you know, the extraneous sound doesn't dominate in the area, that its so high --

MS. McFAWN: Well, Mr. Zak --

MR. RAO: It is hard to figure out just looking at the table, you know, whether sound from Ameren has the same

level as the --

HEARING OFFICER KNITTLE: All we have at this time is Mr. Zak's testimony.

MR. RAO: Now I know.

HEARING OFFICER KNITTLE: But still, that's what you're saying. It would help to have actual numbers.

MS. McFAWN: If you were to include the extraneous sound in your measurements, would that comply with the Board's measurement protocol?

MR. ZAK: No.

MR. RAO: Just to -- and not from that perspective, just from the perspective of demonstrating the extraneous sound to dominate.

MS. McFAWN: You testified earlier today that when you were measuring the ambient sound at Ameren in September 2003 you had to pause your instrumentation 12 times I believe it was?

MR. ZAK: At least.

MS McFAWN: At least. And you

took 17 minutes worth of reading to get ten minutes worth of valid data?

MR. ZAK: That's correct.

MS. McFAWN: And when you paused it, it was for what kind of sound?

MR. ZAK: Extraneous.

MS. McFAWN: I hope that helps you understand, and what time of the day you were taking those measurements?

MR. ZAK: It would have been around -- between 10:00 o'clock and 11:00 o'clock at night -- well, let's start with the ambient. We also paused it when we were taking ambient measurements. It would be run from 9:30 p.m. until little a little after 11:00 p.m.

MS. McFAWN: I think you might have actually started at 9:00 and then at 9:30 switched from ambient --

MR. ZAK: That's correct. I started at 9:00, yes -- 9:11.

MS. McFAWN: I hope that -- so maybe that puts it in the context of when the extraneous noise is present. At 9:00

o'clock at night, that often, 12 flyovers in a half hour's time.

HEARING OFFICER KNITTLE: Let's take five real quick.

MS. McFAWN: Certainly.

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

HEARING OFFICER KNITTLE: All right. Let's go back on the record then if we will and thank you for humoring me and letting me make my phone call.

MS. McFAWN: Glad to do it, John.

HEARING OFFICER KNITTLE: Let's go back on the record. We're still asking questions of Mr. Greg Zak.

MS. McFAWN: Yes, we are. I think we're on question No. 3.

MR. JOHNSON: We are, but just before we leave the "not significant," I guess I misread this question. It seemed to me that you're, and just tell me

whether I'm right or wrong, your characterization of the non-significance of a particular noise level, it seems to me like you testified that that was dependent upon the character of the noise in the particular area, is that what you were --

MR. ZAK: Exactly. It is very area dependent. If you have a very noisy area, the levels we're talking about here are not significance. In a very quiet area, these levels could be extremely significant. It all depends upon the area that we're talking about.

MR. JOHNSON: Okay. That's it for me.

MR. RAO: I had a follow-up. In terms of the nighttime standards, do you have the same opinion as what's being proposed as compared to what the Board has on its books?

MR. ZAK: Yes.

MR. RAO: Are they not significant based on the extraneous sound

in the area?

MR. ZAK: Yes. We run into exactly the same problem that we've just been discussing and that is that the extraneous noise in the area is so dominant because of the fact it is an industrialized area, we've got a road there that's got a lot of traffic on it, a lot of heavy truck traffic, we've got a tremendous amount of air traffic overhead, so even at night we still have so much extraneous noise and sound that the level that Ameren is requesting are typically reasonable because from my perspective, what I see happening here is the impact of Ameren as compared to the extraneous sound is minimal even at night. When we were there from say 10:00 o'clock until after 11:00 p.m., again we had to stop our analysis so many times, over a dozen times, because of aircraft flyovers that greatly exceeded the levels from Ameren. We simply couldn't hear Ameren for about a seven-minute period

there. For a total period of 17 minutes, seven minutes we couldn't hear Ameren and ten minutes we could and the ten minutes we could we measured Ameren noise.

HEARING OFFICER KNITTLE: You were there for how long out of that -- I mean, you took 17 minutes worth of measurements. Were you there long enough to determine -- well, he was taking measurements and then excluding. Were you there long enough past that 17-minute period, was that fairly typical of the situation out at Ameren?

MR. ZAK: Yes.

HEARING OFFICER KNITTLE: How long were you there, I guess, first of all?

MR. ZAK: The whole time?

HEARING OFFICER KNITTLE: Right.

MS. McFAWN: You arrived at -- or you arrived earlier than this, but you started taking sound measurements at 9:00?

MR. ZAK: Correct.

MS. McFAWN: And then the -- then you concluded the section of taking your measurements for ambient purposes, right?

MR. ZAK: Yes, about 9:30.

MS. McFAWN: And then you still stayed at the same location?

MR. ZAK: We never moved. We kept everything running and we never even turned our analyzer off. We just kept everything going and from 9:30 until 10:00, the peakers were in the process of starting up and we had radio contact with the technicians at Ameren that were starting the entire system up. At 10:00 o'clock they told us that they were fully up and then we began trying to gather data on the facility and we got about ten minutes worth of data in a period of about, say, 15 to 16 minutes and then we got another chunk of data a little later after that and when we went back to the office and analyzed, we had about three big chunks of data, each one ten minutes

long. Of the three we had -- we picked the noise of the three to represent Ameren and there wasn't a very significant difference. My guess from memory is about a two decibel difference between the quietest measurement and the loudest measurement. It wasn't a lot of difference.

HEARING OFFICER KNITTLE: You're talking about the measurements of Ameren, right?

MR. ZAK: Of Ameren, yes.

HEARING OFFICER KNITTLE: I guess my question, and I probably phrased it inartfully was, you were there -- you were referring to a 17-minute period where only ten of those 17 minutes you were listening to Ameren because of the extraneous noise?

MR. ZAK: Right.

MS. McFAWN: Let me just clarify. That particular discussion was based on when he was trying to take the ambient and then he concluded the ambient

and he went on to take with Ameren running at full power.

HEARING OFFICER KNITTLE: So then at that point he wouldn't be able to tell whether in the 17-minute period the ten minutes where he took Ameren --

MS. McFAWN: Well, then he testified that subsequent to that, correct me if I'm wrong, Greg, you talked about during the period when the plant was fully operational you still had extraneous noise that interfered with your taking -- there were only some periods of time that you couldn't measure the facility at full operation load?

MR. ZAK: That's correct. If I can kind of go through the scenario briefly here and --

HEARING OFFICER KNITTLE: Yeah. You know, and I want you to do that as well, but I just -- the only thing I was really concerned about is whether that was a fairly typical 17-minute period for the time you were out there?

MR. ZAK: Yes, it was the -- from the standpoint of the noise that was generated by Ameren, it was the worst period we could find. For the period -- as far as the extraneous sound is concerned, we were trying to do everything we could to avoid that. Even with trying to avoid the extraneous sound, we still had a 17-minute period there where we could only get Ameren measurements for ten minutes out of 17, but that gave us our ten minutes of Ameren data.

HEARING OFFICER KNITTLE: So at a minimum it was that type of situation throughout the time you were there in terms of the extraneous noises?

MR. ZAK: Yes, but we had extraneous noise happening really from 9:00 o'clock until about 11:15 or 11:20, whenever we concluded our measurements.

MR. JOHNSON: I think he's asking was that time frame representative of a normal typical time frame at any

other time on another day? Was there a similar amount of extraneous noise and a similar amount of time that you could hear Ameren and a similar amount of time you can't hear it?

HEARING OFFICER KNITTLE: Well, right, because right now we're looking at a 17-minute period where for -- you testified that seven out of those minutes was extraneous noise that you couldn't take measurements, you know, but I want to know, and I think you have answered that was the case, but the 17-minute sample time is a pretty limited sample of size?

MR. ZAK: Right.

HEARING OFFICER KNITTLE: For all we know during those 17 minutes there really was a lot of extraneous noise, but, you know, a couple hours later there's no extraneous noise.

MR. ZAK: And we actually were measuring from approximately say 9:00 p.m. until 11:15 p.m. continuously and we

were looking for ten-minute periods of time so we could say well, we have -- we used the Leq methodology of measuring and we were trying for what we call a ten-minute Leq, which would be roughly equivalent to a one hour 100 Leq. The results would be, in essence, the same, but we were looking for chunks of time, ten minutes long, but they were somewhat artificial because in reality the chunk of time was probably 17 minutes long, but we kept subtracting out the extraneous sound so we got down to ten minutes of pure Ameren sound and this was going on from about 10:00 p.m. until 11:00 -- after 11:00. Let me rephrase that. I'd say from 10:00 p.m. until about a few minutes before 11:00 when they told us they were beginning to shut down and the shutting down process takes quite a while so we did continue to measure, but the results we were getting we could see were dropping by a few decibels between say a little bit before 11:00 o'clock and by

11:15 we could see a slight drop in sound level so we thought well, we're not going to use data, we're going to use the data and we went back and talked to the technicians and they showed us their power curves when they hit peek power and that was from roughly say 10:00 p.m. to about 10:50 p.m. and that was the time frame that we -- we looked at that time frame and said, okay, out of that time frame we got about three chunks of data we gathered. Each one was one where we had about 17 minutes of data, but of that 17 minutes, seven minutes was extraneous sound, but ten minutes was Ameren so it was pretty consistent actually. If we looked at the time period for just measuring Ameren, we probably had at a one hour period of time at least 21 minutes of extraneous sound where we couldn't measure Ameren because all we could hear was vehicles passing by on the road or airplanes flying overhead.

MR. JOHNSON: You were looking

for -- you wanted to have the highest decibel reading that you legitimately would get from the operation of those four because that was the basis of your request for a deviation from our rule, right?

MR. ZAK: Exactly. I was taking my measurement very much in the way I would back when I worked for Illinois EPA if I was doing enforcement measurement where we were looking for a violation and so I'm looking for the worst case here and I want to get the highest possible numbers, but I also want to get these high numbers, but with excluding the extraneous noise because that really wasn't -- had nothing to do with Ameren -- had nothing to do with the extraneous noise and back in my enforcement days that's how we would have done an enforcement case is to, again, exclude any extraneous noise from the -- both the ambient and the noise source of interest.

MS. McFAWN: Should we go on to

the next question?

HEARING OFFICER KNITTLE: Yeah.

MS. McFAWN: The next question is would sound levels at the proposed limitations of 80 decibels at 31.5 Hertz, which is 5 dB above the current limit, be able to penetrate a house with windows closed? If so, please comment on the impact, if any, on the proposed limit.

MR. ZAK: Jet aircraft -- I should say passenger jet aircraft or package jet aircraft at nighttime, the over-flights currently exceed 80 dB at 31.5 Hertz and penetrate houses with closed windows. These are the dominant sources of this type of noise in the area when compared to the Ameren facility.

MS. McFAWN: So at night you mentioned there are still jets overhead in this area?

MR. ZAK: That's correct. And, again, we would be seeing periods of time the night we were there that out of say 17 minutes of time, we have seven minutes

of jet aircraft noise dominating the area with perhaps ten minutes during that 17-minute period of time where we could hear the -- just hear the Ameren facility.

MS. McFAWN: Thank you.

MR. ZAK: But we had a competition going on between the jet traffic and Ameren and, again, in a house -- as far as penetrating the house is concerned, the problem the homeowner is going to run into there is again the intrusion of the coming -- the constantly coming and going of the jet sound.

MS. McFAWN: Question four, do you believe that the proposed noise limits for sound emitted to Class A land offer protection against unreasonable exposure to environmental noise burdens that result in annoyance, speech interference or adverse community reaction during daytime hours?

MR. ZAK: The environmental noise in the area around the Ameren

facility is characterized by the roar of overhead jet traffic, the rumble of distant railroad trains and their whistles and also truck and automobile traffic on Gifford Road. These noise sources create the unreasonable exposure listed in your question. Thus, these extraneous noise sources are of greater impact than the noise emitted at the levels proposed by Ameren.

MR. RAO: And do you have the same opinion as to the nighttime hours also, which goes to questions five and -- I think -- yeah, question five deals with the nighttime?

MR. ZAK: Yes. It would be the same for the nighttime because again when we were there, we started taking our measurements at the end of the day -- daytime -- ending at 10:00 p.m. and we had gotten the ambient and just began to obtain our data on Ameren when we crossed from that line in the regulations from daytime to nighttime. So, again, our

opinion here is based upon our nighttime observations.

MR. RAO: Go on to question six.

MS. McFAWN: Okay. This question is raised by some comments at page seven of your testimony regarding the proposed Class B noise limits. You state that the environmental impact based on the proposed changes would be of insignificant consequence. Please explain the rationale for your conclusion.

MR. ZAK: And the rationale for this conclusion is the same as the one for the proposed Class A noise limits. The presence of extraneous noise in the heavily industrialized area around the Elgin Ameren facility dominates the area and, again, since we have a request for higher limits under Class B, the impact with the extraneous noise again would be very -- I basically stand by my statement.

MS. McFAWN: Okay.

HEARING OFFICER KNITTLE: That is the extent of the Board's questions. Member Johnson, do you have anymore?

MR. JOHNSON: You said a couple of times, Mr. Zak, that you considered the possibility of that facility being subject to a no noise complaint in the future as being remote?

MR. ZAK: That's correct.

MR. JOHNSON: Clearly there's some chance or we wouldn't be here today and you wouldn't have filed the petition for the site specific rule. Have you talked to Ameren individuals, employees? Have you told them the difference between numeric noise violation and nuisance noise violation? Have they asked you at all about how this will affect the potential nuisance noise case in the future?

MR. ZAK: No, they haven't.

HEARING OFFICER KNITTLE: Yeah, we'd like to hear a response.

MS. McFAWN: Could you read back the question? I was thinking still of something else. Can you paraphrase it?

HEARING OFFICER KNITTLE: Essentially Member Johnson, and I don't want to state what he said, but, you know, there's different types of potential enforcement cases involving noise and one of course is a numeric violation and another is a nuisance type violation and, you know, the two are not completely related. He asked --

MR. JOHNSON: I just asked if anyone had talked to you, I guess specifically, Mr. Smith, or other Ameren employees and explained to them that if the Board were to grant a site specific rule and change this based upon your request that that would not insulate you in the future from a nuisance noise violation -- a nuisance noise case being brought in the citizens enforcement context or otherwise?

MS. McFAWN: I've advised the

client of that fact.

MR. JOHNSON: That's the extent of my questions.

MS. McFAWN: That is an interesting protection afforded by the Board's regulations.

HEARING OFFICER KNITTLE: Pardon.

MS. McFAWN: It's a very interesting protection afforded to the public by the Board's regulations.

HEARING OFFICER KNITTLE: And I think Mr. Zak touched on it earlier when he was talking about the high degree of the noise regulations or noise in the state of Illinois even though there's essentially no noise program with the Illinois EPA.

MR. JOHNSON: The program is right at your table.

MS. McFAWN: And then also it kind of -- your question and our answer or discussion about it also goes to testimony from the Attorney General's Office about homeowners -- future home

owners. We realize that they are afforded that avenue of having the noise program in Illinois work.

HEARING OFFICER KNITTLE: Which is?

MS. McFAWN: I had a couple of other questions if I could just to follow-up on Mr. Zak's last question about the commercial changes that we're asking for.

Mr. Zak, they were wondering about the impact of the change in the Class B limits?

MR. ZAK: Yes.

MS. McFAWN: We've only requested three numerical changes in the Class B limits, is that correct?

MR. ZAK: That's correct.

MS. McFAWN: Those would be at the 1,000, 2,000 and 4,000 Hertz levels?

MR. ZAK: That's correct.

MS. McFAWN: And the levels we asked for, aren't those equal to the daytime limits for Class A or residential

land?

HEARING OFFICER KNITTLE: Ms. McFawn, can I stop you?

MS. McFAWN: Sure.

HEARING OFFICER KNITTLE: Joel --

MR. STERNSTEIN: I've got to go, sorry.

HEARING OFFICER KNITTLE: Do you have questions you want to ask?

MR. STERNSTEIN: Pardon?

HEARING OFFICER KNITTLE: You can ask questions now if you have any.

MR. STERNSTEIN: No. I gave Howard my questions, so he'll ask them. I have to go.

MS. McFAWN: I have to ask Howard some questions.

HEARING OFFICER KNITTLE: You know, Howard will be here without the benefit of counsel.

MR. STERNSTEIN: I understand that.

MS. McFAWN: I need this on the

record.

MR. STERNSTEIN: If I don't catch the --

HEARING OFFICER KNITTLE: This is all on the record. I understand that, but you understand that he may be subject to questions and you are going to allow him to be subject to those questions without counsel being present.

MR. STERNSTEIN: Howard, if you don't understand something, say you don't understand it. If you don't want to answer, say you don't want to answer. Okay?

HEARING OFFICER KNITTLE: You don't have any objection to those questions being asked?

MR. STERNSTEIN: No.

HEARING OFFICER KNITTLE: Okay.

MS. McFAWN: My apologies to the Attorney General's Office. I didn't -- I wasn't aware that he would have to leave prematurely.

HEARING OFFICER KNITTLE: Just

for the record, Mr. Sternstein did not make that available -- that particular information available to anybody. You can proceed.

MS. McFAWN: Okay. We were talking about the proposed noise limits for the Class B limits, the Class B properties, and that there are three and that they are equal to the daytime noise limits as proposed and, in fact, the difference between the current Class B limits and those proposed at the three octave bands we're talking about, are those significant differences, for instance, at Class B for the 1,00 Hertz octave band it goes from -- the current is at 57 and the proposed is at 58?

MR. ZAK: That's correct.

MS. McFAWN: Would that be a significant difference to a commercial establishment?

MR. ZAK: No. We're talking about one decibel and one decibel is an increment that is so small that it's

usually only perceptible if somebody hears a sound, a pure tone, and the tone is increased by one decibel, that's about the minimum amount of increase or decrease that is perceptible by the average person, but that's only the presence of the tone. If you were to have a one decibel change and then the sound stopped and then you brought the sound back again, you change it by one decibel, the average person could not tell the difference. It would sound the same to them.

MS. McFAWN: Okay. Thank you.

MR. RAO: I have a follow-up. Do you still stand by your earlier opinion that the increase in sound levels that have been proposed here are not significant because of the extraneous sound or just because of the difference in the decibel level?

MR. ZAK: No. Due to the area in question, the actual character of the neighborhood and more specifically, the

extraneous sound in the character of the neighborhood, we look at the heavily industrialized area there, not only the jet aircraft over-flights, but the heavy truck traffic in the area there is such that -- is the dominant noise in the area.

MR. RAO: Absent the extraneous sound, a six decibel increase or a 22 decibel increase in sound, do you think it will have a significant affect absent extraneous sound?

MR. ZAK: Absent extraneous sound?

MS. McFAWN: Are you talking for the purposes of commercial property?

MR. RAO: Residential or commercial. You just -- Mr. Zak just said, you know, one decibel is insignificant just looking at the numbers and I was just asking if there's no extraneous sound, does a six-decibel increase -- whether it's significant or not?

MR. ZAK: It depends upon the ambient. Now, if the ambient is high, the six decibel increase will, you know, be insignificant. We might not even be able to hear it, but, again -- for example, in an area that's extremely quiet, which we don't have here, but we did have a very quiet area then, yes, six decibels increase would be quite significant, 22 decibels would be extremely significant. It's based upon the area.

MR. RAO: So the bottom line here is -- your position is because of the extraneous sound, all these increases that you have asked for is reasonable?

MR. ZAK: Yes.

MS. McFAWN: Okay. Mr. Zak, wouldn't the -- you just testified that the ambient would also be part of that conclusion or could be part of that conclusion or have an impact on the recipient, the noise recipient, not just extraneous, so if you set aside the

extraneous, don't we need to also still address, as you did, that ambient noise also affects whether or not the increased decibel level is of significance?

MR. ZAK: Yes.

MS. McFAWN: So it's not totally dependent on the extraneous, your opinion?

MR. ZAK: That's correct, it's both.

HEARING OFFICER KNITTLE: Anything further, Ms. McFawn?

MS. McFAWN: Not for me. I might want to ask him some for questions after Mr. Chinn does.

HEARING OFFICER KNITTLE: Mr. Chinn, do you have some questions for Mr. Zak?

MR. CHINN: I just have a few questions.

Mr. Zak, you've put a lot of emphasis on extraneous noise or background ambient noise. Would you expect that the ambient noise or extraneous noise would be consistent and

constant 365 days a year?

MR. ZAK: No.

MR. CHINN: Would there be time or days when the ambient level would be lowest?

MR. ZAK: There could be.

MR. CHINN: Could you tell us what those days might be?

MS. McFAWN: That's a rather broad question.

HEARING OFFICER KNITTLE: Is that an objection?

MS. McFAWN: It's an objection. That's too -- you're asking him to specify which days in the course of 365 days might be less noisy than others?

MR. CHINN: Yes.

MS. McFAWN: If you can answer it, Mr. Zak, try, but -- or answer it, but if you can't because it's too general and too broad, then so state.

HEARING OFFICER KNITTLE: I don't think I have to rule because Ms. McFawn is allowing him to answer, but

go ahead and answer the question if you can.

MR. ZAK: Well, I could conjure up a situation. For example, say Christmas day we wouldn't expect to see much in the way of the truck traffic in the area, but we might still see a lot of air traffic overhead because of Christmas jet flights, a lot of folks traveling back and forth during the Christmas holidays, so I would expect to see the character of the noise in the area change from day-to-day, but, again, the -- using the example, say Christmas day, well, we might see a drop in -- a big drop in truck traffic because of the holiday, but we might see an increase in air traffic so it's a little hard to pick out a specific day and say, well, on a certain day at a certain time we would expect to see a real significant drop or for that matter a real significant increase in extraneous ambient noise in the area.

MR. CHINN: Would you expect

industrial noise, say, on New Year's day or as you had mentioned Christmas day?

MR. ZAK: Very little.

MR. CHINN: Would you expect to have any significant insect noise on New Year's day or Christmas day?

MR. ZAK: Virtually none.

MR. CHINN: Would you expect the ambient level to be comparable to weekdays as on Sunday?

MS. McFAWN: If you know, Mr. Zak.

MR. ZAK: It would be a little bit lower on Sunday, in my opinion.

MR. CHINN: And what do you base your opinion on?

MR. ZAK: Just my general 30 years of experience. Now, I kind of condition that upon I think as some of the testimony from today touched upon the fact that U.S. Can operates 365 days of the year.

MR. CHINN: I'm sorry?

MR. ZAK: I'm sorry?

MR. CHINN: I didn't hear you.

MR. ZAK: I said it's my understanding that U.S. Can operates throughout the year, 365 days, 24 hours a day. If that's the case, they won't be expected to see very little change in the ambient levels in the area. I think a lot of it would depend upon U.S. Can because when we were there, we did notice a significant amount of noise -- ambient noise from U.S. Can.

MR. CHINN: I was there January 1st and I didn't hear any noise from U.S. Can. I was there at about 4:00, 4:30.

MS. McFAWN: I believe that the witness has already testified about conditions on January 1st and December 25th and I believe he also said there would not be much ambient noise, so I think that question has already been -- I think Mr. Zak has already addressed what you just testified to. He agrees with you, in other words.

MR. CHINN: Mr. Zak placed a lot

of emphasis in his testimony on ambient or extraneous noise and I'm trying to learn whether this is constant 365 days a year and obviously it is not, there are holidays that --

MS. McFAWN: Mr. Chinn, your testifying now as opposed to questioning Mr. Zak and I would just note that it seems that you're testifying about one day and you've asked him about 365 days.

MR. CHINN: That is correct. I'm trying to learn whether on holidays you would expect the same ambient level as you would on regular workdays?

MS. McFAWN: And he's addressed that by his answers to you.

MR. CHINN: In your testimony before the Board on the peaker plant as I have already asked you you indicated that the noise level can be controlled to 99. Blah, blah, blah. In order to make that determination whether a silencer is achieving those efficiencies, would you not have to know what the inlet noise

level is so you can compare it to the outlet noise level?

MR. ZAK: Well, I wouldn't normally compare the inlet noise level to the outlet noise level.

MR. CHINN: Pardon?

MR. ZAK: I wouldn't normally compare the inlet noise level to the outlet noise level.

MR. CHINN: Isn't that how you calculate your efficiency?

MR. ZAK: I don't quite understand the question. Could you kind of give me a little bit more detail in the question?

MS. McFAWN: Can I just ask a question? I guess, could I object? I don't see the relevance of this question. The Board's noise limits are set as numerical values, not efficiency.

HEARING OFFICER KNITTLE: Mr. Chinn, do you have anything in response to that?

MR. CHINN: Pardon?

HEARING OFFICER KNITTLE: Do you

have a response to her objection?

MR. CHINN: Yes. There's testimony here that their silencers are state of the art maximum reduction and how would you know that unless you know what the -- you start with and what you end up with? So a silencer -- in order to determine the efficiency of a silencer you need to know what the inlet is compared to the outlet.

MS. McFAWN: My objection is on the relevance. It doesn't -- it's not relevant, how efficient. It is relevant as to how much we can contain the noise and does it meet Board limits or could it meet the proposed Board limits. It's not based on efficiency.

HEARING OFFICER KNITTLE: Anything further?

MS. McFAWN: I'm sorry. I was just trying to explain the relevance.

HEARING OFFICER KNITTLE: No. When I say anything further, I mean if you have anything further before I rule,

I'm more than eager to hear it.

MS. McFAWN: Thank you, Mr. Knittle.

HEARING OFFICER KNITTLE: There's no hidden message there. The objection is overruled. I want to hear what Mr. Chinn -- what Mr. Zak has to say in response to Mr. Chinn's question. Noting, of course, that this is a rulemaking proceeding and it's hard for us to keep any information that is relevant, and I know that's your objection, but we like to let as much in as we possibly can in the rulemaking context. I think that question is relevant.

MS. McFAWN: Well, then, could I just make a slight statement? Mr. Chinn is asking Mr. Zak about a statement he made not in this proceeding, but a statement he made at a general informational proceeding where the Board was trying to learn more about peaker plants and efficiency and sound levels and a whole plethory of things and now

he's asked him to take that statement out of context and address it in this proceeding and I do not see the relevance to this proceeding and I just have to point that out on the record.

HEARING OFFICER KNITTLE: It's duly noted and you can have a standing objection on the record to this line of questioning. Mr. Zak?

MS. McFAWN: Can we -- also I would object that Mr. Zak is probably not the right person to address this. Could I have a different witness address Mr. Chinn's question?

HEARING OFFICER KNITTLE: Mr. Chinn, do you care if another one of the witnesses on the panel addresses the question or --

MR. CHINN: I'm sorry?

HEARING OFFICER KNITTLE: Do you care or do you have any preference as to whether Mr. Zak addresses this question or one of the other witnesses or do you want to hear what Mr. Zak says?

MR. CHINN: No. I was just saying that when Mr. Zak testified before the Board, he had testified as to the available control technology in a generic form as it relates to peaker plants.

HEARING OFFICER KNITTLE: Right, and Ms. McFawn has suggested that one of her other witnesses would be better able to answer that question. Would you rather hear it from Mr. Zak or do you have a preference?

MR. CHINN: Yeah. The other witnesses did not testify before the Board.

HEARING OFFICER KNITTLE: Understood. I just wanted to hear what you said. I'm going to allow the question to Mr. Zak. If you want to have one of the other witnesses follow-up, you'll be more than able to do so.

MS. McFAWN: Mr. Chinn has just said that it's from a different proceeding.

HEARING OFFICER KNITTLE: Yes,

and I've already ruled.

MS. McFAWN: Do we want to get to the answer or --

HEARING OFFICER KNITTLE: We want to hear the answer to the question that you've objected to and I've overruled the objection at this point. Mr. Zak, do you need the question rephrased or --

MR. ZAK: No. I think I can address the question and I'd like to clarify while I'm answering if I could, Mr. Chinn. I think what you're asking me is if we know what the amount of sound energy is of the gas turbine -- peaker without a silencer on there and we insert a silencer in the system, what type of sound reduction would we expect to see by inserting a -- and by silencer I don't mean just one small silencer, say an exhaust silencing system as part of the gas turbine and I think you're asking me, well, I testified a number of years ago back in 2000 as to what the proximate

sound energy would be of the gas turbine with no silencer on there versus a silenced gas turbine system as you find in a peaker and I characterized that by a percentage of 99.99999 percent and the reason I used that terminology was to try and make it a little more understandable for those folks who deal a lot in pollution levels in parts per million and so I used the percentages. The way I calculated those was to go back to the insertion loss of a silencing system having talked to an individual who had spent several years in the peaker industry and I basically got my numbers from him as to what one would expect to get from a totally uncontrolled gas turbine engine to a fairly typical silenced peaker that was typically used by the industry. I hope I answered your question.

MR. CHINN: I'm not sure. Any silencer -- we can look at the catalog, manufacturer's catalog, and it

will tell you what the percentage reduction it would have, right, based upon what you start out with and what you end up with?

MR. ZAK: Correct, the insertion loss.

MS. McFAWN: Could Mr. Parzych answer that question for you, if you can look at such a catalog and find that out?

MR. CHINN: I think Mr. Zak already answered it.

HEARING OFFICER KNITTLE: Mr. Parzych, if you have a further clarification, you'd be more than welcome to give it.

MR. PARZYCH: Yes. Mr. Zak answered that you can get the insertion loss of the silencer, that is in decibels, not percent. So if you want to get to percent, there's an easy way you can convert decibels into percent, so you don't need to know the unsilenced sound level of the gas turbine and then the silenced sound level of the gas turbine. If you know the insertion loss from the

catalog, as Mr. Chinn says, you can now determine what the percentage reduction would be and if it's a ten dB insertion loss, you effectively would have a 90 percent reduction in the overall sound. If it's a 20 dB insertion loss, you would have a 99 percent reduction in the overall sound, 30, 99.9; 40, 99.99. For each ten dB that you go up there's an additional nine that goes to the end of the decimal points there. So if you had a 50 dB reduction, insertion loss if you will of your silencer, it would be 99.999 percent efficient. So you don't need to have the unsilenced sound power level to determine the efficiency of the silencer. It's the insertion loss of the silencer.

MR. RAO: Thank you for the clarification.

HEARING OFFICER KNITTLE: Anything further, Mr. Chinn?

MR. CHINN: Would you know what the outlet dB is if you don't know what the inlet dB is?

MR. ZAK: Mr. Chinn, are you asking me or Mr. Parzych?

MS. McFAWN: How about either one?

MR. PARZYCH: No.

MR. CHINN: Thank you.

MR. PARZYCH: Because you'd have to apply the amount of insertion loss of your silencer to some number.

MR. CHINN: Thank you.

Mr. Sternstein had some questions, I'm trying to interpret his writing. He was asking that -- you had testified that the noise of Ameren's peaker plant would not interrupt conversation or sleep because it is a constant noise, is that accurate?

MR. ZAK: That would be in conjunction with the presence of the extraneous noise.

MR. CHINN: I think his question, I'm trying to translate it, is that he's talking about the sound source is a constant sound source that would not

tend to interrupt conversation, is that an accurate characterization of your testimony?

MR. ZAK: Yes, I would say it is.

MR. CHINN: Thank you. The other question he had was when you conducted your noise for sound measurement, was that in compliance with the Board's measurement procedures -- the proposed procedures?

MR. ZAK: Yes, in strict compliance with the proposed procedures.

MR. CHINN: Is that also consistent with in compliance with the current rules of the Board at regulation Section 910?

MR. ZAK: Yes.

MR. CHINN: I have one question for Mr. Smith. Is one of the factors in locating the peaker plant at the location where it's at due to the proximity of the gas pipeline?

MR. SMITH: Yes.

MR. CHINN: Thank you. And am I correct in understanding that the peaker plant operates 16 percent of the time.

MR. SMITH: Not quite. What I testified today was that the air permit that we were granted by the Illinois EPA would allow us to run up to about 16 percent of the time on an annual basis.

MR. CHINN: On an annual basis?

MR. SMITH: Yes.

MR. CHINN: So 84 percent of the time you would be down, not operating?

MR. SMITH: Yeah. I think for clarification, the air permit is a cap, it provides a limit on how much we're able to operate. It doesn't mean that we will operate 16 percent of the time. So to say that we would be down 84 percent, I don't know if that's really the right way to look at it, but we probably will be down more than 84 percent.

MR. CHINN: More than 84 percent?

MR. SMITH: I believe so.

MR. CHINN: So if you were to make any modifications, physical modifications to the plant, you have more than 84 percent of the time available to do that without interpreting operations, would that be a correct statement?

MR. SMITH: Well, I don't know if it is or not because it would depend upon the schedules for doing whatever modifications we're talking about and the market conditions would also influence what -- when we would need to operate. So sitting here today, I can't really speculate on it.

MR. CHINN: So would you say it's true there are times available when you would be able to do construction or modification to the plant and not interrupt or interfere with operations?

MR. SMITH: For minor activities or minor periods of time where the units would be unavailable or usually in the calendar year would be sometime where we would conduct those activities.

MR. CHINN: That's all the questions we have.

HEARING OFFICER KNITTLE: Ms. McFawn, you have, you said some follow-up questions to ask Mr. Chinn.

MS. McFAWN: I do. Before that, I have a question to ask Mr. Smith.

HEARING OFFICER KNITTLE: Sure.

MS. McFAWN: Mr. Chinn was asking you about being able to schedule down time in the event you had to do some modifications or do some installation, my question to you is in the -- regularly in much of the power industry you schedule outages and those outages are routinely scheduled for maintenance and sometimes for minor to mid level changes. Could you schedule such outages -- would the market and the need for this type of plant allow you to schedule those outages in advance if they were major -- if you had major work to do?

MR. SMITH: If the outage was a few days it's probably likely we could

find some time to conduct the work. For something major like in the context of some of the modifications we've talked about today, it would not really be feasible to schedule long outages to, say, for example, install a new exhaust stack or relocate a stack. I mean, those kinds of things would be very major modifications to these units and very difficult to be able to take the outages.

We also have some contractual obligations that we have to meet, which would be impacted if we had to enter into a major construction program, not to mention the time lines required again to go back and modify the air permit as well as the city ordinances with the city of Elgin.

MS. McFAWN: Could some of those changes like a new stack -- you know, if you're going to extend the exhaust silencer and install a new stack or otherwise install a new stack, some of those types of things would take

structural changes to the existing facility, right?

MR. SMITH: That is correct.

MS. McFAWN: Which could mean disassembling -- the time to disassemble the existing facility?

MR. SMITH: It would include time to disassemble existing equipment. If it involved extending the stack or relocating a stack, it would involve foundation work, which requires excavation and structural fill as well as concrete work and then reconstruction with the new equipment.

MS. McFAWN: Could that take up to a year?

MR. SMITH: Well, the actual, you know, demolition and installation time is unclear to me. We haven't really studied that. I don't think it would take up to a year.

MS. McFAWN: A good part of a year or a half year?

MR. SMITH: Maybe half a year

depending on the extent of the modifications.

MS. McFAWN: Thank you.

MR. CHINN: Mr. Smith, you indicated that the modifications may entail a modification of your air permit?

MR. SMITH: That is correct.

MR. CHINN: Under what circumstances or conditions that you would need to modify the permit?

MR. SMITH: Any modification that would change the flow dynamics or dispersion of the exhaust gases into the atmosphere or the location of a stack would require additional modeling work and a re -- or a modification of the air permit itself.

MS. McFAWN: That's our understanding at least.

MR. SMITH: That's right, that is my understanding.

MR. CHINN: Is that part of the air pollution regulation that you're reciting?

MR. SMITH: Is modeling? 'm not sure what --

MR. CHINN: A requirement for a modification of the permit?

MS. McFAWN: You know, I would just want to interject here that the air -- as you well know, Mr. Chinn, the regulations for air permits and air permit modifications at facilities, is really quite a complex area and our testimony today was to explain that there's a high likelihood of that. I don't mean to say that in all instances no matter what the modification is to this plant that we would have to seek an air permit modification, but in some of the examples that we gave today and we discussed today, there's a high likelihood we would at least have to investigate whether we need to seek a modification from the Illinois EPA and if we did we would have to maybe conduct modeling in order to obtain such a modification, but at this point Mr. Smith

has testified about what he thinks we might have to do. We don't want to say that in all instances we will have to do that.

MR. CHINN: Because I'm not familiar with the conditions that Mr. Smith recited as a requirement to modify the permit.

MS. McFAWN: Well, generally we have staff and the staff is subject to air pollution permits and so we're just bringing it to the Board's attention that if we have to do some significant changes to this facility in order to comply with noise limitations, then there's a high likelihood that it also now becomes involved in the second media.

HEARING OFFICER KNITTLE: Is that sufficient, Mr. Chinn?

MR. CHINN: That's it.

HEARING OFFICER KNITTLE: Any more -- no further questions?

MR. CHINN: Pardon?

HEARING OFFICER KNITTLE: No

further questions?

MR. CHINN: No further questions.

HEARING OFFICER KNITTLE: How about from you, Ms. McFawn?

MS. McFAWN: I have some questions of Mr. Chinn.

HEARING OFFICER KNITTLE: That's correct. Proceed. Mr. Chinn, I know you've been hopping back and forth since Mr. Sternstein left in roles here, but let me remind you you're still under oath. Okay?

MR. CHINN: Thank you.

MS. McFAWN: It's been a while since you testified so give me a moment if you would?

Mr. Chinn, you testified or at least in your questioning you indicated that you had been out to the facility on January 1st of this year, is that correct?

MR. INN: Pardon?

MS. McFAWN: You testified -- in

your questioning you indicated that you were at our facility on January 1st?

MR. CHINN: I was by there.

MS. McFAWN: You were by there.

Did you -- how long did you stay there?

MR. CHINN: Approximately ten, 15 minutes.

MS. McFAWN: Had you been out to that area before that day?

MR. CHINN: Not in the immediate area, no.

MS. McFAWN: At paragraph eight of your prefiled testimony you state that according to Ameren's proposal there are already residences in the area adjacent to Ameren's facility that has recently been classified -- reclassified as Class A land use. Is that statement correct?

MR. CHINN: I think the word reclassify was a typo by my attorney.

MS. McFAWN: Well, it's got a footnote and the footnote says that based on information provided by Ameren in its

petition, the village of Bartlett rezoned the Realen property as residential in June 2003 so I don't know if it's a typo.

MR. CHINN: That's correct, but it's not --

MS. McFAWN: Let me ask you this: Are there any residences on the Realen property?

MR. CHINN: I didn't see any, no.

MS. McFAWN: So that statement of fact in your prefiled testimony is not correct, is that right?

MR. CHINN: No. You can rezone a property without anyone residing on that property.

MS. McFAWN: That wasn't my question. My question was your statement is that there were residences on the property that was reclassified as Class A land use and I'm just asking you since you've been there, did you see any residences?

MR. CHINN: No. I'm saying that

the word reclassified was an error and what was meant by that is the area to the east has already been classified as residential, which was the yellow part of that Exhibit A2.

MS. McFAWN: Mr. Chinn, you know, if you're talking about the area to the east that we talked about earlier, is that adjacent to our facility?

MR. CHINN: Adjacent?

MS. McFAWN: Yeah.

MR. CHINN: It's in proximity to it. I was not --

MS. McFAWN: Is it adjacent, though, in your opinion?

MR. CHINN: Well, you can say it's adjacent. It's not contiguous, but it's in proximity close -- close proximity to Ameren.

MS. McFAWN: By close proximity, like how far away is it?

MR. CHINN: There's no scale on this map.

MS. McFAWN: There isn't, but

you recall there.

MR. CHINN: Pardon?

MS. McFAWN: There isn't a scale and we admit that and we say that it's on the other side of the railroad and the other side of the gas pipeline and the other side of the transmission lines, so in your opinion, how far away is it? What's contiguous?

MR. CHINN: It looks like it's about 800 to 1,000 feet.

MS. McFAWN: Okay. That's your opinion of how far away it is?

MR. CHINN: I'm eyeballing it based upon this Exhibit A2.

MS. McFAWN: Back to my original question, though. Your statement says that there are residences on the Realen property and you did not see any residences on the Realen property, is that right?

MR. CHINN: No. There were no homes on the Realen property.

MS. McFAWN: Okay. That's good.

I just wanted to correct that fact.

Mr. Chinn, you're concerned that the hearing is premature. Are you aware of the fact that Realen Homes has submitted a letter of support?

MR. CHINN: Pardon?

MS. McFAWN: Are you aware that Realen Homes has submitted a letter of support on our behalf?

MR. CHINN: No, I'm not.

MS. McFAWN: In support of our petition.

MR. CHINN: As part of your petition?

MS. McFAWN: Not as part of our petition, but into the Board's record in this proceeding?

MR. CHINN: No, I haven't seen it.

MS. McFAWN: Okay.

MR. CHINN: Is it a part of your petition?

MS. McFAWN: It is not attached to our petition. It was filed with the

Board.

MR. JOHNSON: I think she said in support.

MS. McFAWN: It is in support of our petition.

MR. CHINN: Thank you.

MS. McFAWN: If we were granted a site specific regulation, would this put the purchasers on notice? Wouldn't that put the purchasers on notice?

MR. CHINN: I don't know the answer to that.

MS. McFAWN: All right. Do you know who owned the property -- the Realen property in the year 2000?

MR. CHINN: I don't know who owns it.

MS. McFAWN: You stated that we should have had an expectation or that -- of the land being converted. What did you base that opinion on?

MR. CHINN: You're asking me whether I would have an expectation that the --

MS. McFAWN: No. You stated that we should have had an expectation of the land being converted and you don't know who owned the property?

MR. CHINN: Based upon the general expansion of the development westward, I would not expect that that property would remain non-residential.

MS. McFAWN: But you don't know who owned the property, so you don't have any idea what the use -- or the intended use was in the year 2000?

MR. CHINN: As I understand, your petition stated that (inaudible) have already rezoned that for residential.

MS. McFAWN: I'm getting confused now. We stated that it was rezoned for residential in the year 2003. I'm asking in the year 2000, you didn't know who owned the profit and you didn't know what the intended use of it was?

MR. CHINN: Well, the property was owned by the -- I believe it's called

Northwest Municipal -- I don't remember the name, but it was owned by a group of community -- northwest community who was planning to develop that property into a balefill.

MS. McFAWN: Could that have been the Solid Waste Agency of Northern Cook County?

MR. CHINN: That sounds familiar.

MS. McFAWN: SWANCC known by its acronym?

MR. CHINN: Yes.

MS. McFAWN: Is that a government agency?

MR. CHINN: Pardon?

MS. McFAWN: Is that a government agency?

MR. CHINN: I don't know.

MS. McFAWN: You asked some questions about a buffer zone and Mr. Zak's testimony at the 2000 hearings on peaker plants. If you have a buffer zone, is that an alternative to

designing a noise reduction?

MR. CHINN: It is not necessarily an alternative. It is an option.

MS. McFAWN: Could you tell me -- you questioned whether or not our equipment is state of the art. What do you mean by state of the art?

MR. CHINN: That was my question.

MS. McFAWN: If I know how you define it then I might be better to answer your question.

MR. CHINN: Pardon?

MS. McFAWN: If I know how you define it and you don't seem satisfied by our answers, we might be able to give you a better answer.

MR. CHINN: State of the art was what is in your petition and I'm asking what -- how you define state of the art.

MS. McFAWN: Do you have an opinion of what state of the art means?

MR. CHINN: I'm trying to

understand what you meant by state of the art.

MS. McFAWN: I know that, but for me to better help you understand what we meant, I'd like to know what you -- what kind of answer you're expecting.

MR. CHINN: If I knew, I wouldn't have asked that question.

MS. McFAWN: Our testimony has been that noise abatement equipment at this facility provides the maximum noise control that we believe is technically feasible and economically reasonable. Is that not state of the art?

MR. CHINN: Yes. Except we don't know what that maximum control means.

MS. McFAWN: You and I would define that in different ways.

You testified that you visited a facility in Hillside. What was the name of that facility?

MR. CHINN: I don't remember the name of the facility. It is located at

the Sexton Landfill at Eisenhower and Manheim Road company and I can't remember the name of the company that went in there and constructed an electronic generating plant using landfill gas which is pretty common nowadays.

MS. McFAWN: And the equipment used to generate the electricity is of what kind?

MR. CHINN: Pardon?

MS. McFAWN: What's the kind of equipment used to generate the electricity?

MR. CHINN: Generators.

MS. McFAWN: Generators akin to the ones we have?

MR. CHINN: I don't know that. I didn't look at it in detail and I have not seen your equipment.

MS. McFAWN: But you've seen a description of our equipment?

MR. CHINN: Pardon?

MS. McFAWN: You've seen a detailed description of the type of

equipment we have?

MR. CHINN: No. I think Mr. Smith said this drawing here (indicating) only shows the principle or major equipment so there's no detail here on Exhibit C -- Exhibit 4.

MS. McFAWN: Have we now identified the type of turbine we have?

MR. CHINN: Only the major equipment as Mr. Smith had testified in answer -- in response to my question.

MS. McFAWN: I'm asking you about what kind of equipment was used to generate electricity at this Hillside location that you don't remember the name of it and you don't know what kind of equipment was used. Could you please provide those details to us then so we can understand if it's a relevant comparison?

MR. CHINN: I believe that facility is available to visit if you so desire.

MS. McFAWN: Well, I would

prefer that since you put this into the record, that you identify it for me. Can I ask the Board to see that that's done?

HEARING OFFICER KNITTLE: Mr. Chinn, do you have that information or no.

MR. CHINN: Pardon?

HEARING OFFICER KNITTLE: Do you have the information that she's requesting?

MR. CHINN: I can get it.

HEARING OFFICER KNITTLE: If you have it and you want to submit it, we'd be happy to take a look at it, but it's not necessarily --

MR. CHINN: No problem. I'll get the name and the name of the company and if they're interested in visiting it, that's probably very feasible.

HEARING OFFICER KNITTLE: Sure. If you want to submit that as public comment, we would be more than happy to receive that.

MR. CHINN: Okay.

MS. McFAWN: Could you also

submit the type of equipment it uses to generate electricity?

MR. CHINN: The type of equipment they have?

MS. McFAWN: That generates their electricity, yes.

MR. CHINN: It's a generator, they have compressors, they have transformers.

MS. McFAWN: How about the model number?

MR. CHINN: No. I didn't take the model number down. I was there for a different purpose.

MS. McFAWN: Well, I would like that information in order to make a valid comparison.

MR. CHINN: I believe that's accessible.

MS. McFAWN: Could you provide it?

MR. CHINN: Sure.

MS. McFAWN: Thank you.

You mentioned that that building

-- that that was a building that enclosed the facility?

MR. CHINN: Correct.

MS. McFAWN: But that building has no roof?

MR. CHINN: Correct.

MS. McFAWN: You also mentioned that you have to wear ear phones?

MR. CHINN: Pardon?

MS. McFAWN: You have to wear ear protection?

MR. CHINN: When you go inside you have to wear ear protection.

MS. McFAWN: So was this equipment -- did this equipment have noise control equipment?

MR. CHINN: I believe they did, but I can't say for sure because as I indicated, I was not there to -- for that purpose.

MS. McFAWN: At paragraph 21 of your prefiled testimony you cite to a statement in the 2000 hearings that there were 67 air permits. Do you realize that

those air permits for existing and proposed power plants?

MR. CHINN: I believe that's true.

MS. McFAWN: So some of those power plants might not have been built?

MR. CHINN: That's true.

MS. McFAWN: You state that none of the owners of those facilities have submitted a petition for relief from the Illinois noise regulations?

MR. CHINN: To the best of my knowledge, that's true.

MS. McFAWN: Does that mean that those facilities are in compliance with the Board's regulations on noise?

MR. CHINN: I would not have that information.

MS. McFAWN: To your knowledge, have there been any complaints filed with the IEPA or the Pollution Control Board concerning peaker plants since 2000?

MR. CHINN: I would not have that information.

MS. McFAWN: At paragraph 22 of your prefiled testimony you site to testimony by Versar about peaker power plant noise and say that Versar provided information at the hearing on six proposed peaker power plants, five in Illinois and one in Maryland from four different developers and you said that the five proposed plants in Illinois were expected to meet noise -- Illinois noise regulations, is that right?

MR. CHINN: Yes.

MS. McFAWN: Do you know if those five proposed power plants were, in fact, constructed?

MR. CHINN: No.

MS. McFAWN: Do you know which -- what those five plants were -- what their names were?

MR. CHINN: The names?

MS. McFAWN: Uh-huh.

MR. CHINN: That's part of the Illinois Pollution Control Board record.

MS. McFAWN: It is. Since you

looked at the Versar report, I wondered if you could provide those to me?

MR. CHINN: I can provide it, but it's part of the Illinois Pollution Control Board record.

MS. McFAWN: Do you know the location of those plants?

MR. CHINN: Of the record?

MS. McFAWN: No, not of the record, of the plants that you site to.

MR. CHINN: Again, that's part of the Illinois Pollution record.

MS. McFAWN: So when you looked at this information, did you look in to find out the names or the locations of those plants?

MR. CHINN: As I answered, that's part of the Illinois Pollution Control Board record.

MS. McFAWN: My question to you is, did you look at the underlying testimony in the Versar report?

MR. CHINN: Only what I have testified to.

MS. McFAWN: Is that a yes or no?

MR. JOHNSON: Ms. McFawn, can I interrupt, just briefly? I note we're on page ten of a -- if you can wrap this up in short order we'll continue, if not, I'm going to need a break.

MS. McFAWN: Okay. I believe I can, Member Johnson.

So did you look at the Versar report?

MR. CHINN: The who?

MS. McFAWN: The Versar report.

MR. CHINN: I'm sorry.

MS. McFAWN: Did you look at the report done by Versar for DuPage County?

MR. CHINN: No, no.

MS. McFAWN: Okay. At paragraph 25 -- well, I'll go on to -- let me backtrack to paragraph 23. You say that the peaker power plants -- or our contention is that peaker power plants are not regulated under the federal -- on a federal level. You say that we're

inaccurate when we say that. Are peaker power plants -- are there regulations for peaker power plants under the federal Noise Control Act?

MR. CHINN: No.

MS. McFAWN: At paragraph 29 of your prefiled testimony you say during the Board's hearing held pursuant to Docket R01-10, Indeck testified or an employee of Indeck indicated that Indeck's peaker plants were designed to meet the Board's nighttime numerical noise limits at all times because those plants might be called upon to operate at any time or day. Do you know if those plants were built?

MR. CHINN: When?

MS. McFAWN: If they were.

MR. CHINN: No, I don't know.

MS. McFAWN: The witness for Indeck, he said they were designed, correct, just designed to meet the Board's nighttime limits?

MR. CHINN: Correct.

MS. McFAWN: You asked us about buffer zones. The witness there says that -- to the Board, it said that Indeck peaker power plants are meeting Illinois standards via buffer zones or design. So does that seem like those are two alternatives?

MR. CHINN: Again, this is part of the Board's record.

MS. McFAWN: I know, but you put it into your -- what was the purpose of putting it into your prefiled testimony?

MR. CHINN: I took it out of the Board's record.

MS. McFAWN: And for what purpose? Why would you cite to this?

MR. CHINN: Because it would indicate that there is technology available to mitigate noise from peaker plants.

MS. McFAWN: Okay. Thank you. That would be all my questions.

HEARING OFFICER KNITTLE: Anything else from you, Mr. Chinn?

MR. CHINN: I have no further questions or comments.

MR. JOHNSON: I just want to know why you weren't watching football on New Year's day?

MR. CHINN: That's a good question.

HEARING OFFICER KNITTLE: Okay. I think that wraps up the meat of the proceedings here today. If anybody has any questions regarding this proceeding or anything relating to it, they can always give me a call at 217-278-2111, that's more geared to members of the public and I note for the last time that there are still no members of the public here at this point in time. We will have a transcript available on?

THE REPORTER: Eight business days from today?

HEARING OFFICER KNITTLE: The transcript will be available we are told on February 3rd, which means that the public comment period will end 30 days

after the transcript is available. Let's set it at March 5th, though, which is a Friday. Any problem with that?

MS. McFAWN: No.

HEARING OFFICER KNITTLE: Does the Attorney General's Office have a problem with March 5th for the end of the public comment period?

MR. CHINN: I'm sorry?

HEARING OFFICER KNITTLE: Any objection to March 5th for the end of the public comment period?

MR. CHINN: No.

HEARING OFFICER KNITTLE: March 5th it will be. The Board's transcript -- excuse me. The transcript, although available on February 3rd, will be available shortly thereafter on the Board's web site which is www.ipcb.state.il.us. That is all I have. Thank you all very much for your attention. Anything else, Member Johnson?

MR. JOHNSON: No. Thanks all.

(Whereupon, no further proceedings were had.)

STATE OF ILLINOIS)
) SS.
COUNTY OF C O O K)

I, TERRY A. BUCHANAN, CSR, do hereby state that I am a court reporter doing business in the City of Chicago, County of Cook, and State of Illinois; that I reported by means of machine shorthand the proceedings held in the foregoing cause, and that the foregoing is a true and correct transcript of my shorthand notes so taken as aforesaid.

Terry A Buchanan

Terry A. BUCHANAN, CSR

Notary Public, Will County, Illinois

SUBSCRIBED AND SWORN TO before me this 3rd day of February, A.D., 2004.

Tamara L. Bailey

Notary Public

"OFFICIAL SEAL"
Tamara L. Bailey
Notary Public, State of Illinois
My Commission Exp. 06/04/2007