

BEFORE THE ILLINOIS  
POLLUTION CONTROL BOARD

DOROTHY FURLAN and            )  
MICHAEL FURLAN,                )  
                                  )  
                  Complainants,   ) PCB NO. 93-15  
                                  )  
                  v.                 )  
                                  ) Winnebago County  
UNIVERSITY OF ILLINOIS        ) Administration Bldg.,  
SCHOOL OF MEDICINE,         ) 404 Elm Street,  
                                  ) Rockford, Illinois  
                  Defendant.     ) July 29, 1996

Hearing commenced, pursuant to assignment,  
at 10:05 a.m.

BEFORE:

DEBORAH L. FRANK, Hearing Officer,  
608 South Prospect Avenue  
Champaign, Illinois, 61820

APPEARANCES:

DOROTHY and MICHAEL FURLAN,  
2608 Hamden Court,  
Rockford, Illinois, 61107  
                                  Appearing Pro Se.

ATTORNEY JAMES P. DEVINE,  
of the firm of Williams & McCarthy,  
321 West State Street,  
Rockford, Illinois, 61101  
                                  Counsel for the Defendant.

REPORTER:

Carrie L. Vaske

## INDEX

Witness	Page
Dorothy Furlan	
(Direct Testimony) . . . . .	17
Cross (By Mr. Devine) . . . . .	21
Tim Ferguson	
Direct (By Mrs. Furlan) . . . . .	48
Cross (By Mr. Devine) . . . . .	54
Joe Seger	
Direct (By Mrs. Furlan) . . . . .	57
Cross (By Mr. Devine) . . . . .	59
Redirect (By Mrs. Furlan) . . . . .	66
Dr. Salafsky	
Direct (By Mrs. Furlan) . . . . .	68
Cross (By Mr. Devine) . . . . .	74
Scott Jensen	
Direct (By Mrs. Furlan) . . . . .	83
Cross (By Mr. Devine) . . . . .	88
Redirect (By Mrs. Furlan) . . . . .	92
Greg Zak	
Direct (By Mrs. Furlan) . . . . .	95
Cross (By Mr. Devine) . . . . .	114
Redirect (By Mrs. Furlan) . . . . .	153
Recross (By Mr. Devine) . . . . .	155
Redirect (By Mrs. Furlan) . . . . .	245
Scott Jensen	
Direct (By Mr. Devine). . . . .	179
Cross (By Mrs. Furlan). . . . .	219
Redirect (By Mr. Devine). . . . .	229

## EXHIBITS

Exhibit	Page
Complainant's Exhibit No. 1 . . . . .	84
Complainant's Exhibit No. 2 . . . . .	94
Complainant's Exhibit No. 3 . . . . .	94
Respondent's Exhibit No. 1 . . . . .	172
Respondent's Exhibit No. 2 . . . . .	180
Respondent's Exhibit No. 4 . . . . .	186
Respondent's Exhibit No. 5 . . . . .	187
Respondent's Exhibit Nos. 6 and 7. . . . .	211
Certificate of Shorthand Reporter . . . . .	252

MS. FRANK: Let's begin and go on the record. Yes, Mr. Devine.

MR. DEVINE: I would just like to advise the -- Your Honor of a couple of matters and make a couple of requests. I anticipate calling Scott Jensen who is seated to my right as a witness, also Dr. Salafsky who is the dean at the college as a witness. I have heard that the Plaintiffs apparently are going to call some witnesses. I would like to know who they are, and I would also move to exclude nonparty witnesses, and Mr. Jensen is going to be testifying. He's our representative from the university here. However, Bruce Kite's also present. We do not anticipate that Mr. Kite will testify.

MRS. FURLAN: Excuse me. What did you say, non what?

MR. DEVINE: Party witnesses.

MS. FRANK: What he means by that is that you and your husband would be able to

stay because you are the named parties in the case but your witnesses who you would be calling would be asked to go to another room during testimony of other witnesses and that they would be called -- we would go and get them when it was their turn to testify.

MRS. FURLAN: So then we call a witness --

MS. FRANK: And we would go and get them, and the same would be true for their witnesses. Everybody who is a witness would be asked to leave the room so that they don't hear what the other people are saying, much like in a courtroom.

MRS. FURLAN: Yeah, I have no problem with that.

MR. FURLAN: No.

MS. FRANK: Before we handle that stuff I'd like to kind of give a brief opening and get the number and case title on the record for the transcript. My name is Deborah Frank and I'm the Hearing Officer for this

matter before the Pollution Control Board. I'd like to welcome you all here today. The case before us is Dorothy Furlan and Michael Furlan versus the University of Illinois School of Medicine, and the case number is PCB 93-15.

Before we begin I just want to tell you a little bit about the process so that you know what happens. It's my job as Hearing Officer to guide the transcript, to be here to rule on evidence and run the hearing, but I do not make the decision in the case. It is the Pollution Control Board that makes the decision in the case, so sometimes I may ask questions that will help the paper record.

Things may be obvious to hear in this room, we're talking about a piece of paper or an exhibit, but we need to really describe it well for the record because what happens is the Pollution Control Board members then come in and they read the

transcript and they look through the exhibit, and we need to be clear about what we're doing for them. So if I am asking questions or intervening at all, that's kind of why that is happening, and the Board's rules do allow me to ask questions.

The Board's rules also allow for interested members of the public to make statements on the record. They cannot question witnesses but they can come forward and be sworn in and state whatever it is that they would like to state. As to the exclusion of witnesses, I have no problem with that. Yes, Mr. Zak.

MR. ZAK: Madam Hearing Officer, in my own situation, typically I'm usually asked to assist the Board in understanding and interpreting the various statements made by lay witnesses, and as such if I'm excluded from the hearing I will not be able to convey that to the Board. I just want to make that as a statement.

MS. FRANK: As an expert and knowing your role in previous noise cases I have no problem with you remaining in the room. I don't know how --

MR. DEVINE: I do object to that because I don't have any problem with him explaining testimony. They can ask him questions. I can ask him questions. He's allowed to -- they're allowed to lay the proper foundation, but I don't think it's appropriate for any witness once that motion has been made to be present, and I would object to it.

MS. FRANK: Well, he is an opinion witness and he can't very well give his opinion --

MR. DEVINE: He's also an occurrence witness in that he was present at the Furlan residence during some testing which I believe will be probably the centerpiece of his own testimony.

MS. FRANK: Okay. Mrs. Furlan, do you



have anything to say?

MRS. FURLAN: Yes, I was not aware of what Mr. Zak just said and I think it would better explain this case. It would be -- you talked about things for the record, that it may be obvious here but for the person reading it you would like it to be certainly a full explanation, and from what he just said, that would provide that. There would be no margin of question.

MS. FRANK: Okay. Generally in Board hearings we do not exclude witnesses. We do in extreme cases, usually landfill sighting appeals, which are highly, highly contentious. Although our rules allow for it I do not think it would be prejudicial to allow Mr. Zak to remain in the room, and I am going to rule that he may stay.

MR. DEVINE: Over my objection.

MS. FRANK: Over your objection.

MRS. FURLAN: Excuse me, can I ask why? Why wouldn't you want the people here.

MR. DEVINE: Your Honor, I don't feel like I should have to address that.

MRS. FURLAN: Oh, I'm sorry.

MS. FRANK: He has explained his reasons to me and you heard his argument, so I will ask everyone else to reconvene to the conference room behind us, although who are you planning on calling first?

MRS. FURLAN: First me, then my husband.

MS. FRANK: Then the rest of them can go ahead and go.

MRS. FURLAN: Now, what about those who are not witnesses, can they stay?

MS. FRANK: They can stay.

MRS. FURLAN: You four can stay.

MR. DEVINE: I did ask, Ma'am, that they also advise me the names of the people participating.

MS. FRANK: Yes, and I will get to that.

MR. DEVINE: Okay. I didn't know if it

had slipped.

MS. FRANK: And if you could please advise us on who it is that you're planning on calling today as witnesses, give us the names of those people.

MRS. FURLAN: Okay, it will be myself, my husband, Lieutenant Tim Ferguson, Mr. Joe Seger, and that's it. And excuse me, Mr. Greg Zak.

MS. FRANK: Okay.

MRS. FURLAN: I'm sorry, I'm sorry. Also Dr. Salafsky and Mr. Jensen. I apologize.

MR. DEVINE: I understood that they had been subpoenaed by the Plaintiff, and that's no problem. And for the record, we have designated Mr. Jensen as the University representative, so I don't believe he's subject to the exclusion. Salafsky, he is, and he's out.

MS. FRANK: That's fine. Before we begin also, I think it's important to make

clear on the record that I respect the University's right to defend itself in a zealous manner, and you certainly have the right to make any objections that you would normally make. This is also a hearing with a pro se party, and so to the extent that we could lower the level of legalese that's going on and try to make this a little bit easier proceeding, it would be appreciated.

If there are questions about procedures, you know, you may object to them asking it, but they certainly have the right to go ahead and ask, and we'll try to handle it as easily as we can. I realize you, the Furlans, may not know all the ins and outs about how we're going to proceed with all of this, so we will try to get through that as best we can without impinging on your right to defend your client.

MR. DEVINE: It's not our intention to win it on the technicality. We'll win it on the merits.

MS. FRANK: Let's go ahead and begin.  
Mrs. Furlan, what you may do now is make an opening statement for the record.

MRS. FURLAN: We intend to prove that the noise generated by the University of Illinois School of Medicine is in violation of Section 900.102 of the Illinois Code subtitle H Chapter 1 which reads, "Pollution of Noise Pollution: No person shall cause or allow the emission of sound beyond the boundaries of his property or property as defined in Section 25 of the Illinois Environmental Protection Act so as to cause noise pollution in Illinois or so as to violate any provision of this chapter."

And under Section No. 900.101, "Noise pollution is defined as the emission of sound that interferes with enjoyment of life or any lawful business activity."

With our witnesses and scientific data we intend to show to the Illinois Pollution Control Board that the noise

generated by the University of Illinois creates unreasonable interference with our use and enjoyment of our property. Though the noise level is within numerical limits this does not by any means -- that it is a major irritant and constant invasion restricting the use of our home and property.

In addition to that we have signatures just from people who have been to our home in July.

MS. FRANK: This is just for the opening statement. You can enter that later pending on objections and things like that.

If you want to go ahead then, introduce everybody for the University of Illinois, go ahead and make your opening statements, Mr. Devine.

MR. DEVINE: Thank you, Your Honor. We will be producing testimony from Scott Jensen and from Dr. Salafsky, the dean of the University of Illinois College of

Medicine. It's important to note that the statute, No. 1, does not prohibit the emission of all sound. Everybody using their property makes noise. It's a fact of modern life.

The evidence in this case will clearly show that the University under not only the standards enumerated in the statute but any other reasonable standard is a good neighbor and does not emit unreasonable noise. The evidence will show that this facility has been in place for years and years and years before the Furlans ever made a complaint.

The statute will show that -- or the evidence will show that the use to which this facility is put in fact requires constant temperatures. It's among other things not only a teaching facility but a research facility, and keeping constant temperature in a research facility is a very important and critical part of conducting

proper research.

The evidence will show that the University has attempted -- has bent over backwards to be good neighbors. They have a buffer zone of 19 acres around their property which gives the Furlans a pastoral setting they would not otherwise ordinarily enjoy if it were not for the University having a spacious area.

That buffer zone I think ironically has contributed to the Furlans believing they are entitled to absolute silence because they get to enjoy the University trees, the University meadowlands, the wildwood creatures that occupy that, so they think they live in the country. The evidence will show they don't live in the country. They live a very short distance away from one of the busiest intersections in Rockford, Illinois. There's very loud noise all over.

The hard evidence will show that



the ambient noise level is barely increased by the University of Illinois College of Medicine facilities and that the University has spent literally thousands of dollars in an attempt to satisfy the Furlans, and they have significantly improved the situation.

What the Furlans really want is complete quiet and they're not entitled to complete quiet, and it's our position that the Board will have no discretion at all. They're simply going to have to deny the Furlan's petition. Thank you.

MS. FRANK: Okay. Mrs. Furlan, you may go ahead then and call your first witness.

MRS. FURLAN: I cannot respond to anything he said?

MS. FRANK: No. You can in your closing arguments later today, but this was just sort of an opening statement of their position and your position.

MRS. FURLAN: Okay. Before I begin, can I change that blind? There's an optical

illusion and Mr. Devine keeps going up and down in my vision.

MR. DEVINE: This one?

MRS. FURLAN: Yes, thank you. Thank you very much.

MS. FRANK: Okay. Now, are you going to testify first or is your husband?

MRS. FURLAN: I am.

MS. FRANK: Then you need to be sworn by the court reporter.

DOROTHY FURLAN,

being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. FURLAN:

Q. Where do you live?

A. I live at 2608 Hampden Court in Rockford.

MR. DEVINE: Your Honor, I wouldn't object to her just not following -- with other witnesses they should. He doesn't have to examine her and she doesn't have to examine him. If it would make it easier I

don't have any objection to her just giving a narrative of the testimony.

MS. FRANK: Is that easier for you to just say what it is that you want to say instead of responding to questions from your husband? Whichever way you find it easier.

MRS. FURLAN: All right.

MS. FRANK: If it's easier to ask and answer questions, you can do it that way. He's just saying whichever way you would prefer.

MRS. FURLAN: As long as we can go slowly with this and make sure our issues are covered.

MS. FRANK: Okay. That's fine.

MRS. FURLAN: I live in a home that is located on the east border of the University of Illinois School of Medicine property. It is a one-story ranch home. There are two bedrooms. The two bedrooms are located one at each end of the house, one at the west and one at the east.

Because of the noise that's generated by the medical facility we hear it in our driveway, on our deck, in our yard and also throughout our home. Of the two bedrooms where I stated one is on the west side, one on the east, the one on the west side, the choice bedroom, is the larger; however, we use the one on the east side which is smaller because it is the quieter of the two.

The noise generated prevents us from opening windows. You cannot use that back room for sleeping, conversation, reading. We designate that room as a guest room; however, no one uses it. All of our children live outside of the city and they do come to visit on a monthly basis every two to three weeks, maybe four weeks, and they'll stay for anywhere from one to three days. When they come they sleep either in the living room on the sofa or on the floor. This is a -- not at all a

comfortable situation.

Also, I have pericarditis and at times I cannot lay down to sleep. Sometimes I just don't sleep, but to get comfortable I can only stay in a sitting position and I do not then use our bedroom because this interferes with my husband's sleep, and because of not being able to use our second bedroom I have to prop myself up on the sofa in the TV room or living room.

Also, we had an uncle who was ill and we were secondary caregivers. He lives, oh, 60, 70 miles from us. Our intention was to bring him to our home. We could not do that because of no place to put -- comfortable place to put him, and so we ended up commuting until hospice was called in and there wasn't as strong a need for us.

We cannot use the deck on the west side of our house. We cannot entertain there or relax there because of the noise.

When we open the windows in the living room it penetrates that room. We do not open the windows in our living room.

Anyone who comes to our home asks, "What factory is that next to you with that noise?" It's there all the time. We first started requesting relief from this noise in 1981 -- excuse me, in 1989. This was done in informal with a letter to Dr. Salafsky thinking we are neighbors and let's discuss this problem, and there was a gap in there of a couple of years when I was -- the effects of pericarditis were more frequent and it was all I could do just to take care of that. I could not go on to anything else. That's it.

MS. FRANK: Okay. Do you want to check your sheet and make sure you --

MRS. FURLAN: Thank you. Thank you.

MS. FRANK: Mr. Devine, questions for the witness?

CROSS EXAMINATION

BY MR. DEVINE:

Q. Mrs. Furlan, when did you purchase that residence about?

A. Ten years ago.

Q. Around 1986?

A. Probably, yeah, 7 maybe.

Q. The School of Medicine was already there, wasn't it?

A. Yes.

Q. And its physical plant was already there?

A. Yes.

Q. And in fact, you didn't notice any problem at all until 1989 or at least you made no complaints until 1989.

A. We made no complaints until '89.

Q. And you've indicated that it was your own physical condition which kind of interfered with your going forward between 1989 and say 1993 when you met with Dr. Salafsky; is that correct?

A. Yes.

Q. And you had a meeting with Dr. Salafsky in

his office, didn't you?

A. Yes.

Q. And he was very polite and cooperative and appeared eager to help, didn't he?

A. Yes.

Q. He told you that the University wanted to be a good neighbor.

A. Yes.

Q. And isn't it your understanding that the University did, in fact, take steps to remedy the problem if there was a -- what you perceived as a problem or do you not know that?

A. I know that they did some work.

Q. And did you notice any improvement or no improvement?

A. No.

Q. Are you complaining of any particular piece of equipment associated with the University or just the fact that it has -- that, you know, every single piece of its heating and air-conditioning?



A. I can't talk about pieces. I can talk about locations.

Q. Okay. Tell us what you're complaining about.

A. There is a noise generated from the building closest to us and also from the air-conditioning units on the ground further from us.

Q. Okay. How far is the building closest to you?

THE WITNESS: (To her husband) I don't know that, do you?

Q. I'm asking you.

A. Oh, I'm sorry. I don't know.

Q. There's never been anybody who made any specific testing for that building, is there or has there?

A. I don't know.

Q. You're about close to 300 yards away from the University of Illinois's physical plant, aren't you?

A. I can't say that. I don't know the

distance.

Q. It's several blocks if you had to block it.

A. Oh, no, no, no, no, no.

Q. You don't think so?

A. Oh, my, no.

Q. How close would you say?

A. A half a block, if that. Yeah, half a block.

Q. From the main building?

A. From that first building.

Q. Okay, and how far from the main building?

A. Well, you know, that's right here.

MS. FRANK: You need to describe right here. That hand gesture won't show up.

A. I thought it was all one building.

Q. Well, you're the one who described there being more than one building so maybe I'm confused. Is it one --

A. Maybe I misunderstood your question. Let's just say that you have an elongated building. There's noise generated from the west side and from the middle of that

elongated building. On the far side when you walk around that side you hear nothing, and that's not -- on that far side wouldn't affect us.

Q. The west side you're talking about.

A. Yes.

Q. Now, between your residence and the building, is it not true that there are numerous trees and brush?

A. No.

Q. No trees?

A. You said numerous. There are not numerous. At one time there were trees along the creek. There is a dry creek that runs through there or flood stream and that's all been cut. We were told to expedite mowing it. Then there is another grove of trees that, oh, maybe five years ago a front loader -- he can't testify. A tractor with something in front of it came down and knocked trees down. They're just piled --

Q. So you don't think there's hardly any trees

now? How would you describe the amount of foliage between your residence and the School?

A. Are you talking on University property?

Q. Doesn't matter, anywhere between your residence and the School.

A. From here to that wall.

MS. FRANK: That won't work for the record.

A. I'm sorry. How many is that? Is that 20 feet?

Q. I would accept 20 feet.

A. 15 feet.

Q. Okay, 15 feet what?

A. Oh, that there are scattered trees and brush.

Q. What's 15 feet got to do with it?

A. You asked what the area of trees were.

Q. Okay, so you're saying there are trees on your property.

A. On our property. Then there's also city property.

- Q. And there are trees on that.
- A. There are trees that we maintain, uh-huh, and then there is the University property.
- Q. In fact, it's kind of difficult to even see the School standing right in your driveway, isn't it, because of the foliage?
- A. Depends on the season, uh-huh, yes. But once again, visual and hearing are two different things.
- Q. Sure. When you open your living room windows, noise penetrates.
- A. Yes.
- Q. Is that the same when you open the bedroom windows that the noise penetrates?
- A. Is it the same noise, yes. To the degree, no.
- Q. And when noise penetrates we're not only talking about mechanical noise that penetrates your home with those open windows, are we?
- A. We are talking about mechanical noises during the evening hours.

- Q. For example, in another two weeks cricket season is going to be here.
- A. We're not talking about that.
- Q. You don't hear cricket noises?
- A. No, we do hear cricket noises. That's not the issue we're here for.
- Q. Well, I'm asking you the questions. When you hear cricket noises you don't object to that.
- A. No.
- Q. You have a fountain on your premises that gurgles; is that correct?
- A. Correct.
- Q. You hear that when those windows are open, don't you?
- A. Yes.
- Q. You don't object to that because that's your fountain.
- A. No, it's not because it's our fountain.
- Q. Why is it?
- A. It's because it's pleasant.
- Q. And were you present in 1994 when Mr. Zak

and Mr. Jensen came to your home and they conducted some tests?

A. Yes.

Q. Were you out there when that was going on?

A. Yes.

Q. And did you have any conversation with Mr. Jensen or Mr. Zak at that time?

A. I don't remember Mr. Zak. He doesn't talk much, but yes, Mr. Jensen and I, I thought we had conversation.

Q. And were you face to face?

A. Yes.

Q. And you were able to converse normally; isn't that right?

A. Yes.

Q. The noise didn't prevent you from -- you didn't have to shout to be heard over the noise or anything of that nature, did you?

A. No, and don't misinterpret our complaint.

MR. DEVINE: Okay. Well, at this point I would ask that the Officer instruct her just to answer my questions.

MS. FRANK: Mrs. Furlan, when he is done asking questions you will get a chance to again kind of respond to what he -- to things that he is asking you if you feel like you need to elaborate on those, so at this time you need to just answer the question he's asking you and then you'll get your turn again.

MRS. FURLAN: Thank you.

- Q. Now, Mrs. Furlan, you have indicated that the problem is more serious at night, is that correct, that the problems you are complaining of you notice it more at nighttime?
- A. No, I don't think that's correct.
- Q. I thought that's what you just said. Maybe I'm mistaken about that. So it's equally noticeable at all times?
- A. Noticeable, yes.
- Q. And bothersome?
- A. Yes.
- Q. At all times of day or night?



- A. Yes.
- Q. Are there other noises during the daytime that mask that noise at all?
- A. Mask it?
- Q. Yes. Do you understand what I mean by that?
- A. Yes, in some way covers it, right?
- Q. Right.
- A. Okay, no.
- Q. Do you hear traffic noise from Spring Creek Road from your residence?
- A. Yes.
- Q. Spring Creek is a -- is it a 45 mile an hour speed limit, do you know?
- A. I don't know.
- Q. Vehicles travel quite fast on that road habitually, don't they?
- A. I can't answer that.
- Q. The noise is very noticeable in your residence from Spring Creek Road, isn't it?
- A. I can't comment on very.
- Q. Is it noticeable?

A. Yes.

Q. When you have those windows that we have discussed that are open, in addition to crickets during August you hear that traffic, you hear birds; is that right?

A. Yes.

Q. If neighbors are running things like lawn mowers or leaf blowers, you hear those sort of things.

A. Yes.

Q. Is that correct? If you have the windows open on your east side and your neighbor has the air conditioner running, you hear that, don't you?

MRS. FURLAN: Can we stop? Do I have to give a yes or no on that because there is a degree here. I have to give him a yes or no?

MS. FRANK: You have to give a yes or no but you may expand on it when he is done asking questions.

A. Yes, I do.

Q. Now, pericarditis, how often do you have the episodes where it makes it difficult for you to sleep?

A. There is not a, say, once a month, twice a month. It can be like gang busters for a month straight and then things are calm for four months, three months.

Q. How's it been this last summer?

A. I was last in the hospital in March. I've not been in the hospital since then.

Q. How many nights this summer have you had to sit out in the living room?

THE WITNESS: Oh, I can't ask you neither.

Q. And if you can't remember precisely --

A. Three or four.

Q. Three or four since the beginning of June perhaps?

A. June, uh-huh.

Q. And I take it when you're doing that you're already in some pretty severe discomfort.

A. Yes.

- Q. And it would be difficult for you to sleep under any conditions, wouldn't it?
- A. Yes.
- Q. In the summer of 1995 it's my understanding that you and Mr. Furlan were out of town most of the summer; is that right? Your daughter was ill and you asked for a continuance of this hearing?
- A. Not most of the summer, no.
- Q. When were you out of town in 1995?
- A. I can't answer that honestly. I cannot. It did conflict with that hearing date. I cannot tell you.
- Q. Do you think it was only, like, two or three days or a week or was it several weeks?
- A. It probably was two weeks and then another.
- Q. That hearing was in May, does that sound right to you?
- A. I'd have to look it up.
- Q. Okay. You don't remember for sure?
- A. No.
- Q. So you think you were out of town two weeks

initially and then maybe one other week during the summer; is that right?

A. During the fall probably.

Q. All right. When did this uncle of yours fall ill, the one who's in hospice?

A. No, he is now deceased. He died.

Q. I'm sorry to hear that. When did that occur though, this episode that you talked about in terms of --

A. It would have been last summer. Well, last summer, fall, whatever. It's just to have that available to him was never available to him.

Q. Well, did you ever discuss that possibility with him?

A. No, between ourselves. With him, would he be willing to come, oh, yes, that would be great. That way, yes.

Q. He was willing to come.

A. Under different circumstances.

Q. Sure. If it were an extremely quiet, relaxed setting.

- A. You're using the word extremely, I can't --
- Q. So you disagree with that.
- A. Yes.
- Q. Well, when was it that you first thought there was a possibility he might come to live with you?
- A. Last year, and I can't give you a month because he was --
- Q. How long after that did he go to hospice?
- A. Four, five months. I really apologize to you. I didn't know we were having these questions. I don't have these things.
- Q. I understand, that's all right. All that anybody's asking is that you answer the questions to the best of your ability. I didn't know I was going to ask these questions because I didn't know what you were going to say.
- A. Okay.
- Q. You have furniture on your west deck, don't you?
- A. Yes.

- Q. And you use that furniture on occasion.
- A. No.
- Q. Never use it?
- A. Never.
- Q. Why is it out there?
- A. It looks nice.
- Q. Okay. Do you have an east deck?
- A. East deck, no.
- Q. Do you have a north deck?
- A. Yes.
- Q. And you use that deck.
- A. Yes.
- Q. I take it -- well, in fact, I'll confess. I was out to your home Friday and I thought I saw Mr. Furlan using an electric leaf blower. Do you guys own an electric leaf blower?
- A. Yes.
- Q. That's a lot louder than any of the noise you're complaining about from the University, isn't it?
- A. Not a lot.

- Q. You would agree though that it's louder, wouldn't you or not? Maybe you don't agree with that.
- A. If I'm standing here and he's using it here, yes.
- MS. FRANK: Here and here won't work on the record.
- A. If he is using it a foot from me, yes. If he is using it further than that, no.
- Q. And you own an electric lawn mower or a gas powered lawn mower?
- A. Yes.
- Q. And a snow blower?
- A. Yes.
- Q. Hedge trimmer?
- A. Uh-huh.
- Q. All those are power tools.
- A. Hedge trimmer, hedge trimmer, no.
- Q. Okay. To your knowledge you're the only couple that has made a complaint to the Pollution Control Board about this noise; is that right?



- A. Yes.
- Q. Do you know what they do at the University of Illinois College of Medicine?
- A. Specifically, no. I'm assuming it is an educational facility.
- Q. Do you know whether or not they carry on research, medical research there?
- A. I have no idea.
- Q. Couldn't say one way or the other?
- A. No.
- Q. So as I understand it you do not necessarily attribute what you're calling a problem to any one particular air-conditioning unit at the University or any one heating unit; is that correct? Could be any or all of them along that east and north wall; is that right?
- A. I would have to say yes.
- Q. Okay, and I take it what you would like to see would be the University to build a wall between its east and north wall and you to stop that sound.

A. I couldn't -- I can't comment on that. That would be under Mr. Zak's recommendation. He would be the sound expert on that. I don't know what would do it.

Q. And you have no idea what it would cost.

A. No, sir.

Q. You really don't care because it's not your money; right?

A. No, it's the taxpayers' money. I care immensely.

Q. Okay, but you want them to do whatever is necessary regardless of cost.

A. I want them to do the right thing.

MR. DEVINE: That's all I have of this witness.

MS. FRANK: Okay. Mrs. Furlan, you have the right now to respond to the things that were brought up in cross examination, so if there are points that you feel you want to make clear, you may do that. Normally it would be done through your questioning of a witness, but because you

did a narrative style the last time we're just going to go ahead and allow you to state whatever it is that you feel you need to state.

MRS. FURLAN: Okay, thank you. I feel that you misrepresent our complaint that we are expecting --

MS. FRANK: This is more like a summary of your argument. What you really want to talk about are maybe specific issues and not sort of the whole thing and tie it up into a package.

MRS. FURLAN: All right, thank you. The issue with the noise from the air-conditioning of neighbors, this is muted. It is sporadic. It is not an all the time situation. The other noises discussed, water gurgling, I don't see a comparison between water gurgling and a drone and a roar.

Spring Creek traffic, this is during traffic hours, going to work, coming

home from work. It's not a continuous thing. As far as the pericarditis, I could not sleep anyway. The issue is not just the sleep. It is trying to be comfortable, to have less invasion into trying to control this health thing.

The furniture on the deck, it makes the house look lived in. It doesn't look like it's vacant. We don't want to -- we don't want anyone thinking no one is there and make it a target. As far as the activity, what the medical school does about the research, I don't know that that has anything to do with anything.

MS. FRANK: Do you have anything else?

MRS. FURLAN: I don't think so.

MS. FRANK: Okay, just on those things.

MRS. FURLAN: Yes.

MS. FRANK: I know you have more information. Do you have anything more?

MR. DEVINE: No further cross.

MS. FRANK: Mrs. Furlan, you may call

your next witness.

MRS. FURLAN: My husband.

MS. FRANK: And you'll need to be sworn.

MRS. FURLAN: Excuse me. He's going to say the same thing I said. Do you want to hear -- he's going to repeat it.

MS. FRANK: Okay. Well, why don't we go ahead and get him sworn first.

MICHAEL FURLAN,  
being first duly sworn, was examined and testified as follows:

MS. FRANK: Mr. Devine, do you have different questions for this witness?

MR. DEVINE: No, I'd ask him the same questions, so you know.

MS. FRANK: Then let's just state for the record that your testimony would be similar to that of your wife's and that you agree with her answers to Mr. Devine's questions. Is that --

MRS. FURLAN: Is that in any -- I don't

know if I can ask this, but is that in any way going to weaken our position?

MR. DEVINE: Not any more than it already has, if it has.

MS. FRANK: I think that if he is going to testify to the exact same things that there is no need for repetitive testimony.

MR. DEVINE: I would stipulate that, you know, you need not hold the number in terms of that, that they're going to say the same thing both on direct and cross examination.

MS. FRANK: Right. Okay. Then you may call your next witness.

MRS. FURLAN: That would be Mr. Tim Ferguson.

MS. FRANK: Okay. We need to go get him.

MR. DEVINE: I'm going to raise an objection to that, but we can wait until he comes.

MS. FRANK: To Mr. Ferguson?

MR. DEVINE: Yes.

MS. FRANK: Swear the witness, please.

TIM FERGUSON,

being first duly sworn, was examined and testified as follows:

MS. FRANK: Mr. Devine?

MR. DEVINE: Yes, I would raise an objection to Mr. Ferguson's testimony. The University previously propounded to Mr. and Mrs. Furlan a request for production. Request No. 5 states, "List the names and addresses of all other persons (other than yourself and persons heretofore listed) who have knowledge of the facts of the allegations set forth in your complaint," and I see listed Helen and Joe Seger, Ron Bonaquist, Diana Pollare and Claude and Ann Zuba, none of whom is Mr. Ferguson.

And on that basis I don't think he should be allowed to testify. We haven't had the opportunity to be aware that he was going to testify, and it would be

prejudicial to our position.

MS. FRANK: Can you give me the date that you -- I have a huge pile of documents so I need to know which one you're talking about.

MR. DEVINE: It looks like it was propounded April of 1993, April 23 of 1993.

MS. FRANK: So you're talking about the answers that came on May 26th of '93?

MR. DEVINE: Yes. It was received by my client on May 27th of 1993. There's also in back of that a petition of some sort, but he is not listed on that petition either.

MS. FRANK: Okay. For some reason I do not have -- I have two copies of the request to produce. The second copy is from the Furlans but it does not have the answers attached to it.

MR. DEVINE: I would submit to Your Honor a copy that the University received.

MS. FRANK: Okay, Mrs. Furlan, when did you become aware that this man would be



testifying? I'm sorry, your name again?

MR. FERGUSON: Mr. Ferguson.

MS. FRANK: Mr. Ferguson would be  
testifying?

MRS. FURLAN: Probably a month ago.  
No, at the time that we knew we were going  
to hearing.

MS. FRANK: And why did you -- what  
occurred that made you find out about him a  
month ago?

MRS. FURLAN: He's our neighbor and he  
has heard this noise.

MS. FRANK: Why was he not listed on  
the earlier documents?

MRS. FURLAN: Ignorance. I had no idea  
this was coming to this. No idea at all.  
These are friends of ours who have commented  
on the noise. We just put their names  
down. We did not go to everyone and say,  
"This is what we're living with here." We  
played it down. We minimized it. We had no  
idea that attorneys were going to be

involved and we just didn't have -- through ignorance. That's the only reason. We just did not ask for assistance.

MR. DEVINE: I don't dispute that part although I think it's disingenuous for her to say they didn't know it was coming to this. They filed the petition. They wanted it to come to hearing. They knew it was coming to hearing.

MRS. FURLAN: Then the ignorance is on the procedure of the hearing.

MS. FRANK: Okay. Let's go off the record for a minute.

(A discussion was held off the record.)

MS. FRANK: I am looking at the document which was request for production and I believe also the answers to the request for production which is file stamped May 27th from the University of Illinois. Unfortunately I don't have the Board's file stamped copy.

I have, as I said before, a copy that does not have the answers attached to it, and as I look at this there is a specific question requesting -- Question No. 4, "State the full name and address of all expert witnesses who will testify at hearing," and there are two expert witnesses listed.

There is not a specific question to nonexpert witnesses who will be testifying at hearing. What we have are two questions on people who may have knowledge to the facts alleged in the complaint, and I understand that the witness may have had knowledge at that time but was left off of this list. However, there was not a specific question on here requesting that other witnesses be listed, and based on the inexperience of the Furlans I don't believe that they would have known that the other witnesses would be excluded if they were not specifically listed.

Based on that I'm going to allow the testimony of this witness. You may continue your objection to the Pollution Control Board if you wish and request that they strike this testimony.

MR. DEVINE: Sure.

MS. FRANK: But because of the way the Board's set up it makes more sense to go ahead and get the testimony from this witness while we are all here at hearing rather than have a remand to come back to hearing and do that, so I'm going to allow the testimony of this witness.

Mr. Ferguson, I believe you were already sworn.

MR. FERGUSON: Yes.

MS. FRANK: To Mrs. Furlan, you may begin asking your witness questions.

DIRECT EXAMINATION

BY MRS. FURLAN:

Q. Mr. Ferguson, where do you live with relationship to the 2608 Hampden Furlan

house?

A. My specific address is 2614 Hampden Court which is immediately west of the Furlan residence.

Q. And are you familiar --

A. I'm sorry, immediately east of it --

Q. That's right.

A. -- of the Furlan residence.

Q. And are you familiar with the noise we're discussing here today?

A. Yes.

Q. You hear this on your property?

A. Yes.

Q. And where do you hear it?

A. Generally or specifically?

Q. Generally.

A. Generally I usually hear it -- most aware of it in the southwest upper bedroom area of my residence.

Q. Do you hear it outside?

A. Yes.

Q. Do you hear it in any other room of your

home?

A. Generally no.

Q. With the way the homes are situated, ours being west of yours, is your -- do we in any way shield your house?

MR. DEVINE: I object to the form of the question.

Q. Okay. What reason is there that you would hear it in that room specifically?

A. That's probably -- and I'm going to have to make some -- again, I don't know specifically what you'd call it, but my best guess as to why I hear it in that room is because it's an elevated room. It is a tri-level house. It is the room that would be the most elevated, and also it's the closest to the source of the noise.

MR. DEVINE: I object to his guess to the answer and ask that that be stricken.

MRS. FURLAN: How else can you answer?

MS. FRANK: I'm going to allow the information with the knowledge that this

witness is not a noise expert but he is giving his perception of the sound in his home. The Board is capable of taking that into account as to credibility. You may continue.

Q. This is the one room that extends beyond our house or the location -- the rest of the house -- our house otherwise covers your western --

MS. FRANK: Mrs. Furlan, you need to ask questions that he can respond to, not yes or no questions. Yes or no questions are for cross examination. I know that's kind of hard to think about, but you need to ask the kind of questions that he can sort of give general information answers to that aren't just yes or nos, so if you can phrase it in a way that will allow him --

MRS. FURLAN: Like how is our house situated?

MS. FRANK: That is fine if you want to ask that.

MRS. FURLAN: The picture I want to give is how these houses sit. Our house covers his.

MS. FRANK: Why don't you ask him how the houses sit in relation to each other.

MR. DEVINE: I don't even mind if that's all she's going to do. If it's easier for them to get rid of him and testify to that herself, I wouldn't mind her reopening her own testimony.

MRS. FURLAN: Mr. Devine, what I'm saying is our house is the buffer house so that consequently every neighbor beyond our house hears less and less than we do.

MS. FRANK: Mrs. Furlan, you're testifying at this point.

MRS. FURLAN: Oh, I'm sorry.

MS. FRANK: Right now you're sort of in the lawyer role so you're asking questions of this witness. You will have a chance at the end after they've called witnesses to come back on with what we call rebuttal



witnesses so if you want to -- if there's things you forgot to say that you need to say you will get a chance to do that.

MRS. FURLAN: All right. Then I have one last question.

MS. FRANK: Okay.

Q. How -- please describe the situation how the houses sit.

MS. FRANK: By the houses you mean Mr. Ferguson's house?

MRS. FURLAN: Our house in relationship to his, yes.

MS. FRANK: Okay.

A. Trying to be as descriptive as possible, my residence obviously is further to the east of the Furlan residence. The Furlan residence is between my residence and the property of the School of Medicine. Not only is their house between my property and the School of Medicine property, there's also a row of trees and brush that divides our property so that many times I know their

house is there but if I was to look directly through I don't have an unobstructed view of their house. It's buffered, if you want to use that word, by a row of trees and brush which further separates my house from the School of Medicine.

Q. And who else at your residence has commented on the source?

MR. DEVINE: I object to that as hearsay.

MS. FRANK: Sustained. You can't ask about -- with some exceptions, I guess, you can't really ask about what other people heard. You need the witness to come and testify to what they heard.

MRS. FURLAN: Even though it is someone in that family?

MS. FRANK: Yes.

MRS. FURLAN: Okay, that's it.

MS. FRANK: Okay, Mr. Devine?

CROSS EXAMINATION

BY MR. DEVINE:

Q. How long have you lived there, Mr. Ferguson?

A. Since April of 1983.

Q. You've never made a complaint to the University or to the Illinois Pollution Control Board about the noises, have you?

A. No, sir, never.

MR. DEVINE: No further questions.

MS. FRANK: Mrs. Furlan, do you have anything else for this witness, any other questions?

MRS. FURLAN: No, I don't think so.

MS. FRANK: Okay. Can we go off the record for a moment?

(A discussion was held off the record.)

MS. FRANK: Back on the record. Mrs. Furlan, you may call your next witness.

MRS. FURLAN: Mr. Joe Seger.

MR. DEVINE: This may expedite things to some degree. I think Mrs. Furlan indicated that these witnesses were largely

going to be repetitive and I certainly -- you know, she has every right to present her case as she chooses, but I wouldn't object to stipulating that they will testify with the exception of precisely where they live, you know, that they also -- you know, the same things would be true.

MRS. FURLAN: We're off the record or whatever you say?

MS. FRANK: Well, we're on the record but we're not arguing this point.

MRS. FURLAN: Initially when all this started way back with this informal conversation, now, maybe my husband and I misinterpreted, but at that time Attorney Kite said this has to be between us because no one came forward with this complaint. So a lot of neighbors were just -- we just -- we went by that direction.

MS. FRANK: That's not, I don't believe, what Mr. Devine is getting to. What he is talking about is that if you have

several neighbors that are going to testify to things very similar to Mr. Ferguson --

MRS. FURLAN: That they are hearing the noise you mean?

MS. FRANK: That they are hearing the noise, that in order to expedite that he would be willing to accept for the record other than where the location of their homes are, and maybe you could give a description of that, that they are going to testify that they hear the noise.

MR. DEVINE: Actually I think that would really only be -- she only named one other neighbor and that's Joe Seger.

MRS. FURLAN: And Joe Seger is not a neighbor. He's a friend and the reason --

MR. DEVINE: Then maybe the stipulation --

MS. FRANK: Then why don't we go ahead and call him. I think with that point it would be faster --

MR. DEVINE: I was trying to make it

faster. It doesn't look like it's going to work.

JOE SEGER,

being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MRS. FURLAN:

Q. Mr. Seger, what is your relationship with the Furlans -- to the Furlans?

A. Very close friends.

Q. And how long have you known them?

A. About 22 years.

Q. Are you familiar with the noise problem discussed today?

A. Yes, I am.

Q. Have you visited at their home?

A. Definitely.

Q. When was the last time you were there?

A. About three, four days ago.

Q. And what noise did you hear, what sound?

A. The sound to me equated to like if you're sitting at a railroad stop and you hear the

train going by, what you hear there or if you're a passenger in a commercial airline, sounds like that roaring or if you're sitting in the room next door, like that only a little louder.

Q. And where do you hear this noise?

A. When I pull up in the driveway or on the west side deck or sometimes in the back even where we meet.

Q. And have you ever spent time on that west side of the house on that deck?

A. No, no, huh-uh.

Q. And why not?

A. The noise is quite loud and you'd rather be where you could talk.

Q. When you say quite loud, how does that interfere with your being on that deck?

A. It's just a nuisance. It's hard to communicate.

Q. Are you aware of -- how are you aware how this noise has affected the Furlans use of their property?

A. Well, I know that they can't use that west room because of the noise, and I've been in there when they're out of town and I've gone over there to water plants and things, and I can hear it in there, and I sure as heck wouldn't want to be in there.

MRS. FURLAN: Thank you.

MS. FRANK: Mr. Devine?

MR. DEVINE: Thank you.

CROSS EXAMINATION

BY MR. DEVINE:

Q. What time were you over there?

A. Oh, all different times.

Q. Well, you said three or four days ago.

A. Yeah, it was in the evening.

Q. Okay. Do you know what time you got there?

A. No, I didn't pay that much attention.

Q. Did you sit out on the north deck that evening?

A. Yes.

Q. Frequently sit out on the north deck?

A. We sit on the north deck. We sit inside the



house and I pull up in the driveway.

Q. Okay, and the Furlans direct you to the north deck.

A. I just walk in there and we're very good friends and I just seen somebody sitting out there so I go out.

MRS. FURLAN: That's a porch, not a deck. We don't sit on the deck.

THE WITNESS: No, it's a porch, yeah, a screened-in porch.

MS. FRANK: The north area is a porch, for the record, a screened-in porch, not a deck.

MRS. FURLAN: There is a deck and a porch. We do not use the deck. We use the porch. And it does matter. Don't roll your eyes, it does matter.

MR. DEVINE: Your Honor, I don't think that I should be subject to that.

MS. FRANK: This is a professional proceeding and it should be treated much like a court proceeding.

MRS. FURLAN: I apologize to you and apologize to you and to anyone here.

MS. FRANK: I just want to make sure that we're clear for the record because we have been referring to the north area as a deck. What you're referring to as the north area is a screened-in porch.

MRS. FURLAN: And a deck.

MS. FRANK: And there is also a deck there.

MRS. FURLAN: Yes.

MS. FRANK: But the area that you're concerned about with the noise is a west deck.

MRS. FURLAN: That is where it's the most prominent and that is the one that's eliminated completely.

MS. FRANK: All right. I think we're clear now for the record. You may continue, Mr. Devine.

Q. (By Mr. Devine) So a few days ago you sat on the west porch; is that correct?

- A. North porch.
- Q. I'm sorry, north porch, and that's a screened-in porch.
- A. Uh-huh.
- Q. Do the Furlans also have furniture on the north deck?
- A. Yeah, they've got a couple chairs out there.
- Q. Do you sit out there at all to your knowledge or not?
- A. We haven't maybe once or twice in the last 20 years, but most of the time it's in the screened-in area because of the bugs and stuff.
- Q. Well, the Furlans haven't lived there 20 years, have they?
- A. Pretty close to it. Well, 15, whatever.
- Q. Ten?
- A. We've known them for 22 years. If you want to be specific I think they moved in there sometime around 1981.
- Q. Okay.
- A. Okay.

- Q. Okay, and the screening keeps the bugs off of you.
- A. Uh-huh.
- Q. Do you notice any other noises as you sit in that yard?
- A. Birds.
- Q. They're quite audible, aren't they?
- A. No, they're very pleasant.
- Q. Sure, but you can hear them without any trouble; is that right?
- A. Yeah.
- Q. The Furlans have a fountain there; is that correct?
- A. That's in the front.
- Q. And when you're in the driveway, for example, you hear the fountain though.
- A. No.
- Q. You don't hear the fountain?
- A. No, I can't hear the fountain. It's just a little trickle of water.
- Q. And do you hear traffic from Spring Creek and High Crest Roads?

- A. No, I never noticed any, no.
- Q. Never noticed, okay. Nobody ever pointed it out to you.
- A. Spring Creek would be quite a ways away.
- Q. I understand.
- A. I'd have to have real good ears to hear Spring Creek.
- Q. How far away is the School of Medicine from the Furlan residence?
- A. I don't know as far as feet. It's the next building over.
- Q. Would you agree that it's probably around 800 feet away?
- A. I wouldn't agree to 800 feet. I have no idea.
- Q. You have no estimate whatsoever?
- A. No.
- Q. You wouldn't disagree or agree with that estimate.
- A. I wouldn't agree with it.
- Q. Okay. What's the -- do you have any estimate or not?

A. No, huh-uh.

Q. So you have no --

A. I can see the building and that's it.

Q. Okay, and you were there three or four days ago. When was the time previous to that that you were there as best as you can? I understand you probably don't keep a calendar.

A. That's true. Probably maybe a week or two. We go out to dinner together and sometimes they drive and sometimes I drive, so I can't remember exactly.

Q. So perhaps once a week or so you're out there?

A. I would say that it would be in that vicinity, yeah.

Q. Okay, and this time that you were in their residence when they were gone, what time of year was that? Was that last summer?

A. It would have been in the summertime, yeah. It's to check and water flowers and stuff.

MR. DEVINE: Sure. I have no further

questions.

MS. FRANK: Mrs. Furlan, did you have more for Mr. Seger?

MRS. FURLAN: No.

MS. FRANK: Okay.

MR. DEVINE: I would like to do a little more. I'm sorry. A couple things occurred to me.

MS. FRANK: Okay.

- Q. (By Mr. Devine) Can you isolate the noise at all that you're talking about?
- A. I know it's coming in that direction from the School of Medicine, and I explained what it sounded like.
- Q. I understand you explained what it sounded like. What I'm asking is have you been out there close enough to determine whether it's coming from a particular piece of equipment or not?
- A. It sounds like an air conditioner. I mean, as I say, it sounds very similar to the room next door only louder. It's quite loud in

there compared to here.

Q. But you haven't been actually on the School grounds apparently so you couldn't say it's this particular piece of equipment or that particular piece of equipment.

A. No, I couldn't do that.

Q. Okay, and it's not always that loud, is it?

A. Every time I've heard it it doesn't seem to change in pitch or anything.

Q. Every time you've heard it, but you don't hear it every time you're out there.

A. I'm not there in the wintertime or anything to hear it, no, but I mean, whenever it's on it sounds the same.

MR. DEVINE: Okay, that's all I have.

MS. FRANK: Do you have anything further?

MRS. FURLAN: Yes.

REDIRECT EXAMINATION

BY MRS. FURLAN:

Q. Whenever you are at that property you hear this noise?



A. In the summertime when they've got the air conditioner on, yeah.

Q. Then you're saying it would be from an air conditioner.

A. It sounded like an air conditioner.

Q. The sound is like an air conditioner. Are you saying it's an air conditioner?

A. No.

MRS. FURLAN: That's it. Thank you.

MS. FRANK: Do you have anything further?

MR. DEVINE: Nothing further.

MS. FRANK: Is there any reason to recall this witness?

MR. DEVINE: Not as far as I'm concerned.

MS. FRANK: Mrs. Furlan?

MRS. FURLAN: No, none.

MS. FRANK: Then Mr. Seger, you're free to go.

MR. SEGER: Do I have to stay in that room?

MS. FRANK: No, you can stay here and listen or you can leave.

MRS. FURLAN: Dr. Salafsky.

MS. FRANK: Let's go off the record for a minute.

(A discussion was held off the record.)

MS. FRANK: Let's go back on the record. Dr. Salafsky, Mrs. Furlan.

DR. SALAFSKY,  
being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MRS. FURLAN:

Q. Dr. Salafsky, we've discussed this noise problem. Our first meeting was in your office; is that correct?

A. I believe so.

Q. And who was in attendance there?

A. I think you and your husband were, I think Scott Jensen was, I believe Bruce Kite was.

Q. And what was discussed at that time?

- A. Your complaint.
- Q. Our noise complaint?
- A. Yes.
- Q. When I commented on the noise from the unit on the roof of your office, what was your comment?
- A. I don't believe that we had had other complaints, I think that was one of my first comments to you; that I had to the best of my recollection never received a complaint about noise pollution, and then I think I indicated to you secondly that we would begin to see if it were indeed a problem we would try to correct it; that I needed to find out about the dollars that would be required for that, and I think that I indicated that we'd always been good neighbors and we had hoped to be able to continue in that vein.
- Q. And then when we talked -- and it was general conversation, it was informal conversation, and the unit on the roof of

your office made your office quite loud, and when that was brought up, what was your comment?

MR. DEVINE: In so far as that's more testimony than it is a question, I object.

MS. FRANK: Okay. Mrs. Furlan, when you make statements like the air conditioner unit was very loud, that's you testifying that it is. That's something that you can say later when it's your testimony again but right now you're asking the witnesses questions. Does that make sense? You're asking him to testify.

MRS. FURLAN: Yeah, I'm asking him to testify, okay. I'll come back to that because I don't know how else to handle it right now, and I think it is important.

MS. FRANK: Okay.

MRS. FURLAN: When we were leaving your office -- but see, I want to ask him what he said. How do I ask that then?

MS. FRANK: You can ask him what he

said in response to your comment, which is different than you stating that it's very, very loud, so you just sort of need to rephrase the question.

MRS. FURLAN: Thank you.

What was your response to my comment when I mentioned the irritation of the noise in your office?

A. I don't recall.

Q. Do you recall stating, "Why do you think I spend as much time out of my office as possible"?

A. No, I do not.

Q. When we were leaving what -- okay, how'd I word that other one? What was your final -- am I asking --

MS. FRANK: You're okay.

Q. What was your final statement to us?

A. That we would try to find the dollars to deal with the problem because we wanted to be good neighbors.

MRS. FURLAN: Thank you, that's it.

Oh, no, I'm sorry. I'm sorry.

During the final meetings when they were doing the final meeting on this and I called you specifically and requested that you do something to reduce the noise because whatever you had supposedly done -- and I'm not saying you didn't do it either, supposedly came out. I don't mean to imply anything by that; that the noise was loud, it continued to be invasive, what was your direction to me?

A. I don't recall. Possibly to take it up with Scott, with Mr. Jensen.

Q. Do you recall saying, "Call me after July 1st and I'll let you know what I decide to do"?

A. Yeah, I think I did say that, but it was not that I'd decide what I would do. It was a matter of trying to find the money to do whatever had to be done in the new fiscal year.

Q. Then after July 1st I called and asked what

you were going to do to reduce that noise.

What did you say then?

A. I don't recall. Why don't you refresh my memory.

Q. Do you recall stating, "I will do nothing, we are in compliance"?

A. I could have said that. If we were in compliance, I probably did say that.

Q. And then I -- do you recall when I asked you -- what was your response when I said to you, "Dr. Salafsky, would you like to live with this noise?"

A. I don't recall.

Q. And without hesitation, Doctor, you said "No." Do you recall that?

MR. DEVINE: That's testimony so I object, but subject to that it might be easier if she --

MS. FRANK: Go ahead and answer the question because she did rephrase it.

A. No.

MS. FRANK: No, you don't recall?

THE WITNESS: No, I do not recall.

Q. But you do recall that phone conversation?

A. I believe so.

Q. How would you define a good neighbor?

MR. DEVINE: I object. I don't believe that's relevant, Your Honor.

MS. FRANK: Sustained. Mrs. Furlan, you need to move to your next question.

Q. Would you agree that a good neighbor is someone who would not cause undue noise?

MR. DEVINE: Same objection, Your Honor.

MS. FRANK: It's sustained. The witness is not an expert on good neighbors and you need to ask him things which are within his knowledge.

MRS. FURLAN: Even though I -- can I ask what his definition of a good neighbor is?

MS. FRANK: I ruled that you couldn't, so you need to move to your next question.

MRS. FURLAN: Thank you.



MS. FRANK: Is that all you have at this time for this witness?

MRS. FURLAN: Yes.

MS. FRANK: After Mr. Devine is done if there are things that he talks with the witness about that bring up questions, you may ask more questions. You may begin.

CROSS EXAMINATION

BY MR. DEVINE:

Q. Dr. Salafsky, you've never been to the Furlan residence I take it.

A. No.

Q. So you would have no way of knowing subjectively what they claim they hear on their property because you were never there.

A. Correct.

Q. Now, what is your position at the University of Illinois College of Medicine?

A. Regional dean.

Q. And how long have you been the regional dean there, sir?

A. 14 years.

Q. And prior to that were you in any way affiliated with the School of Medicine?

A. Yes.

Q. And how so?

A. I was head of the department of biomedical sciences from '77 to '82.

Q. Okay, and do you have any direct knowledge as to how long the School of Medicine has been there?

A. Yes.

Q. How long has it been there?

A. As a school of medicine?

Q. Yes, sir.

A. 25 years.

Q. Okay, and has it been constituted in its present form in terms of its heating and air-conditioning unit since that time?

A. Since 1975.

Q. Okay, and before the School of Medicine existed as the School of Medicine was the building itself there in some form?

- A. Part of it.
- Q. Okay, and how did it exist at that point?
- A. I believe as a nursing home and prior to that as a TB sanitarium.
- Q. Do you know when that facility first opened in its original form as a TB sanitarium?
- A. Probably around 1920.
- Q. And do you know whether the Furlans moved into that residence before or after 1975 when it's been configured in its present form?
- A. I have no idea.
- Q. In addition to your duties as the dean, what else do you do at the University of Illinois College of Medicine, sir?
- A. As a faculty person I give lectures. I conduct research.
- Q. What kind of research do you conduct, sir?
- A. I personally conduct tropical disease research.
- Q. What's your degree in, for the record?
- A. A doctorate.

Q. In what?

A. Pharmacology.

MS. FRANK: Let's stop for a moment. Stay on the record. Mrs. Furlan, did you have a question?

MRS. FURLAN: Does that have anything to do with the noise?

MS. FRANK: He's getting background on the witness and that's allowable.

MRS. FURLAN: Thank you.

MS. FRANK: Please continue.

Q. And are there other doctors or physicians or researchers there who conduct research?

A. Yes.

Q. What kinds of research are conducted at the School of Medicine?

A. It's a broad range of research. It varies from what we would call bench research or basic research involving laboratories that might be classified, for example, as physiologic research or pharmacologic or biochemical or molecular biological or

immunological, to research that deals with epidemiology and the community at large, to research that involves clinical trials of drugs, to research that involves educational methodology.

Q. In the research that you conduct as well as in other types of research, what, if any, is the importance of consistent climate control?

A. Critical.

Q. Why is that?

A. First of all we need to have a very narrow range of temperature in the building where the research is conducted because the instrumentation that conducts the research is highly sensitive. The experiments in many instances are temperature sensitive, so the ambient temperature needs to exist firstly for those reasons in a fairly narrow range.

Additionally, some of the research at the College of Medicine involves animals

such as mice or rats. Those animals need to be housed in a facility that is approved, that is accredited by two bodies, the USDA, US Department of Agriculture, and AAALAC, AAALAC is the acronym. It's the body that accredits the laboratory animal facilities nationally. Both of those accreditations are necessary in order to secure federal funding from the national institutes of health or from the USDA or from many other bodies.

And even private funding agencies, the March of Dimes or whomever, often utilize federal standards, vis-a-vis housing animals, and those standards are such that the animals need to be maintained under the most humane conditions possible, which again includes a narrow ambient temperature range.

- Q. Is any of the research that's done at the University of Illinois College of Medicine of any practical application?
- A. I think so.

- Q. Can you give us any concrete examples.
- A. There's research done on varicella there.
- Q. What's that?
- A. Which is chicken pox. There is some significant funding for breast cancer research. There is funding for a tropical disease that affects about 300 million people worldwide. There is funding for better understanding of the brain relative to several disease states of the brain.

One of our scientists this summer as he does every summer goes to NASA. His research is germane to space exploration.

- Q. Now, the chicken pox, did your facility have anything to do with the development of the chicken pox vaccine that just came out?
- A. A little bit, yes, because the investigator there had a contract from the drug company that was involved in producing that vaccine.
- Q. Can you tell me about the grounds that the School is set on.
- A. Roughly 20 acres.

- Q. Okay, of which the building takes up do you know how many acres?
- A. Offhand I don't know. Maybe an acre or two.
- Q. And what's the rest of that acreage devoted to?
- A. Well, parking space and border area, a lot of which is trees and brush.
- Q. In the time since you have been the acting and now full-time dean, which I think is around the early 1980s, other than Mr. and Mrs. Furlan has anybody ever come to you with a complaint that the University is emitting noise that is bothersome, irritating or in other words, just generically bad?
- A. Never.

MR. DEVINE: That's all I have.

MS. FRANK: Mrs. Furlan?

MRS. FURLAN: Doctor, we're all impressed with what you do at your facility and we are not at all trying to shut you down. That isn't the purpose of why we are



here.

MS. FRANK: Mrs. Furlan, you're testifying again.

MRS. FURLAN: I'm so sorry.

MS. FRANK: You need to ask this witness questions, whatever it is that you are trying to elicit from him. You'll get a chance to say whatever it is that you want to say.

MRS. FURLAN: Then there are no questions and I apologize if I'm taking up people's time.

MS. FRANK: No, that's okay. Do you have any questions for this witness, any further questions?

MS. FRANK: No.

MR. DEVINE: I have no additional questions.

MS. FRANK: Is there any reason to recall this witness?

MR. DEVINE: I don't think so.

MS. FRANK: Thank you, Dr. Salafsky,

and you are free to leave.

Mrs. Furlan, you may call your next witness.

MRS. FURLAN: Mr. Jensen.

MS. FRANK: Can we handle this witness the same way we did the last one?

MR. DEVINE: Yes, Your Honor.

MS. FRANK: Mrs. Furlan, after Mr. Devine is done asking the witness questions you'll have a chance again to cross-examine him.

MR. DEVINE: Your Honor, actually I do have a request. I think the Furlans are also intending to call Mr. Zak as a witness. I would prefer to reserve my examination of my witness until after Mr. Zak testifies.

MS. FRANK: That's fine. Then we will recall this witness. Mrs. Furlan, you may begin.

SCOTT JENSEN,  
being first duly sworn, was examined and

testified as follows:

DIRECT EXAMINATION

BY MRS. FURLAN:

Q. Mr. Jensen, in 1987 I wrote a letter to Dr. Salafsky to which you responded.

A. Yes.

Q. The last paragraph of that sentence -- of that letter is -- now, do I read this?

MR. DEVINE: Perhaps it can be marked as an exhibit.

MS. FRANK: Yes. If you would enter it as an exhibit then the Board will have a copy of it. If there are any objection to this being --

MR. DEVINE: No, I don't object to it.

MS. FRANK: Then the letter dated August 13th, 1987 from Mr. Jensen to Mrs. Furlan will be marked as Complainant's Exhibit 1.

(Complainant's Exhibit No. 1 was marked for identification.)

MS. FRANK: And if you want to -- do

you have a copy?

MR. DEVINE: We've got a copy.

THE WITNESS: I have my copy.

MS. FRANK: You can just direct him to that final paragraph, whatever your question is.

Q. The last paragraph, that sentence, would you read that, please.

A. It is also our desire that the University of Illinois College of Medicine, Rockford, can continue to be a good neighbor -- good neighbors, end parenthesis.

Q. Then it is the intent of the School of Medicine to your knowledge -- am I leading again?

MS. FRANK: (Shakes head.)

Q. -- to be a good neighbor.

A. That's what we intended to write.

Q. And what is your position at the School of Medicine?

A. I am the coordinator for physical plant services.

- Q. We've met at Dr. Salafsky's office and then again I believe Mr. Devine mentioned that you were at our home on the west deck when there were some readings being taken.
- A. Yes, that is correct.
- Q. Do you recall who else was there?
- A. On the west deck, that was a daytime reading with Greg Zak. You were there, your husband was there. We were trying to communicate using walkie-talkies and so there may have been another member of my staff that had returned to give me a walkie-talkie. Other than that I don't recall that we had any others present. Mr. Zak also had another representative with him that was near our air-conditioning unit, so on the west deck I believe there was just Mr. Zak, myself and yourselves.
- Q. What was your conversation with my husband and yourself on the deck?
- A. I don't know. We were probably just doing some type of chitchat. I don't recall

exactly.

Q. Do you recall talking about where you live, where you went to school, what your degree is in?

A. I might have.

Q. In fact, we even talked about your shoes. I noticed today they were just as shinny as they were that day.

A. We were just doing friendly chitchat, talking about different things.

Q. When you were there we also talked about the noise.

A. Yes.

Q. Do you recall how you described that noise?

A. I don't know exactly how. I don't know how exactly I described it. I did say that the noise that was going on, it was perceptible, so I could say that you could hear a noise. I do recall saying that.

Q. Do you recall referring to it as a Chinese water torture?

A. Oh, I think there was -- I did make

something in kind of a jest comment of that way. We were just talking a chitchat, and in the conversation I basically said, you know, we are trying to be a good neighbor. We're not trying to be in a position to give you something that would be an ongoing type of thing and certainly it's not like Chinese water torture. I put it in that context.

Q. What you've just said now, it is not like, but is that what you --

MR. DEVINE: Objection, she's arguing with the witness. He's testified as to what he said.

MRS. FURLAN: But he said two things.

MS. FRANK: Mrs. Furlan, when you get a chance to testify you can state --

MRS. FURLAN: At my closing, when I make the closing?

MS. FRANK: Well, no, you're allowed to call rebuttal witnesses which means you can come back and make testimony again on the record.

MRS. FURLAN: Oh, that I can?

MS. FRANK: That would be your chance to clarify things. Besides your closing argument it would be your chance to clarify anything that you feel needs to be clarified from your testimony and having to do with the testimony of any other witnesses.

MRS. FURLAN: Thank you. Thank you all for your patience with us. Thank you. That's all, Scott.

MR. DEVINE: Your Honor, I will cross-examine Mr. Jensen, but I want to reserve the right to call him in my case in chief.

MS. FRANK: That's fine.

CROSS EXAMINATION

BY MR. DEVINE:

Q. Mr. Jensen, did you tell Mrs. Furlan after being out there and hearing the noise that you felt it was akin to Chinese water torture to live there?

A. I made -- no, I did not say that that's what



it was but I think I made that particular comment.

Q. As you have described it, you didn't want to put them through the Chinese water torture.

A. That is correct.

Q. You said that you heard a perceptible noise.

A. That is correct.

Q. Could you compare the noise, for example, to -- well, you live in a home here in Rockford; right?

A. Certainly.

Q. In a residential area?

A. Yes.

Q. And does your neighbor have an air conditioner?

A. Yes.

Q. And is that a perceptible noise?

A. Certainly.

Q. Is it in any way comparable to what you heard on the deck of the Furlans' residence at that time?

MRS. FURLAN: Is he leading him? Is that what you accused me of doing?

MS. FRANK: He's allowed to do that during cross examination. When he starts calling witnesses and he asks them questions and then you get a chance to cross-examine them, you will be allowed to ask leading questions. It's just when they're your own witness that you're calling that you can't ask leading questions.

MRS. FURLAN: Thank you.

- A. Our own neighbors have an air-conditioning unit that's probably 25 feet away from our bedroom window's two second-story rooms, and yes, that is a perceptible noise and certainly you can hear their air conditioner. And I would say when we were out on the west deck there was a perceptible noise as well.
- Q. So they're comparable.
- A. They could be comparable to the effect that they're both perceptible noises and that you

can identify them as being from a particular source.

Q. One wasn't overwhelmingly louder than the other, was it?

A. No.

Q. Would you describe -- you heard, I think, Mr. Seger testify. When you were at the Furlan residence did you hear noise coming from your physical plant that sounded like you were at a railroad crossing?

A. No. There was a different noise but it did not appear to me as if it was like that of a railroad crossing.

Q. And whatever your comment was to the Furlans, was it intended to show them that you were going to try to do your best to help them in whatever way you could and to be a good neighbor as your letter said?

A. Yes, that is correct.

Q. Is it your opinion that the noise coming from the School has been unreasonable or has been the equivalent of the Chinese water

torture to somebody who would be living there?

A. No.

MR. DEVINE: That's all I have at this time.

MS. FRANK: Okay. You may ask this witness additional questions if you have any based on what Mr. Devine asked him, but he will also be recalling him and you will have a chance at that time to ask him questions. If there were things specific to the questions he just asked, you may ask them now. If they're new and different things --

MRS. FURLAN: No, they're not.

MS. FRANK: Okay.

REDIRECT EXAMINATION

BY MRS. FURLAN:

Q. Mr. Jensen, when you use the word comparable, are you talking comparable in sound, comparable in volume?

MR. DEVINE: I object only because I think the question is impossible to answer.

I didn't know there was a difference between the two.

MS. FRANK: What do you mean between volume and sound?

MRS. FURLAN: What does something taste like? It tastes like such and such does. Something else tastes like that also but it could be different. Sound, it sounds like a motor running or it sounds like a horse running. A cow running and a horse running are comparable. A motor running and an engine running are comparable.

MS. FRANK: You mean type of sound and volume. Do you mean -- let's wait a second.

Mr. Jensen, when you said comparable, did you mean that the volume levels were comparable or that it was the same type of noise?

THE WITNESS: It was the same type of noise in reference to the volume. I'm just saying that both units were perceptible.

MS. FRANK: Okay.

MRS. FURLAN: Thank you, and okay, I can talk later though, all right. Thank you.

MS. FRANK: Okay. Is that all?

MRS. FURLAN: Yes.

MS. FRANK: Is that all at this time for Mr. Jensen?

MR. DEVINE: Yes.

MS. FRANK: Mrs. Furlan, you may call your next witness.

MRS. FURLAN: Mr. Greg Zak.

GREG ZAK,

being first duly sworn, was examined and testified as follows:

MS. FRANK: Let's go off the record for a second.

(A discussion was held off the record.)

MS. FRANK: Mrs. Furlan, are you ready?

MRS. FURLAN: I think so.

MS. FRANK: Let's go back on the record. Mr. Zak, I remind you that you're under oath. Why don't we go ahead and mark Mr. Zak's resume as Exhibit No. 2.

(Complainant's Exhibit No. 2 was marked for identification.)

MS. FRANK: Is there any objection to it being --

MR. DEVINE: No, Your Honor.

(Complainant's Exhibit No. 3 marked for identification.)

MS. FRANK: -- admitted? Okay, and just to keep things straight, we'll mark this letter of July 8th from Mr. Zak as Complainant's Exhibit No. 3. I won't admit it at this time. We'll allow Mrs. Furlan to give us information on it first, but at least we'll get it marked so that we all know what it is.

Okay, Mrs. Furlan, you may begin.

DIRECT EXAMINATION

BY MRS. FURLAN:

- Q. Mr. Zak, do you recognize this?
- A. Yes, this is a copy of my current resume that outlines in some detail my experiences in doing noise measurement work and noise control engineering work in the last 24 years.
- Q. Okay, thank you. And do you recognize this, the letter?
- A. Yes. This is a copy of a letter I sent to you and to all the parties involved in the case on July the 8th, 1994. It refers to a report that's attached to it. I took the liberty of attaching the letter to the report for the hearing to hopefully assist the Board in understanding the case.

In the letter I refer to some fairly technical terms, and if I could take the liberty at this point to briefly explain the letter itself. The letter basically states that as far as the numerical regulations are concerned that the University of Illinois School of Medicine



has met the numerical standards.

At that point you had indicated to me that you could still hear sound or noise coming from the facility. Measurements were taken in your home and from those measurements I obtained what we call an acoustical fingerprint of the sound present. There was a very substantial noise peak at the frequency of 57.3 hertz. Then measurements were taken also -- and this is documented in the report dated July the 6th attached to the letter -- at the School and at the School I did note that there was a plain audible tone present at the Carrier unit, which is one of the air-conditioning units outlined on the map I'll get to very briefly that is attached to the report, that was of the same frequency and similar magnitude as far as acoustical fingerprint was concerned to the sound measured in your home.

At this point I'll briefly

describe the report. The report indicates data that was taken to determine the degree of compliance after efforts were made by the University of Illinois School of Medicine to bring their noise emissions into compliance with the State regulations. I worked on this with Mr. Scott Jensen. The first page of the report is rather self-explanatory giving the names and addresses of the parties involved, dates the report was taken. Near the bottom we have some calibration levels and then finally my signature as preparer of report and Mr. Scott Jensen as a witness to taking the data.

On Page 2 I have a brief narrative that describes what was done on that particular day as far as taking the measurements. I explained in the area of Page 3 of 5 that noise emissions from the School were such that they were slightly above the ambient, but in my professional

opinion and the opinion of the American National Standards Institute, the three decibel higher measurement that we obtained from School emissions as compared to ambient emissions was not sufficient to indicate a violation so that there was no numerical violation present.

I also noted that the 57.3 hertz, one-twelfth octave band that was measured is not regulated by the Illinois Pollution Control Board. Their finest increment of measurement is a third octave. This is a twelfth octave. It's a much more finer gradation of measurement.

Going on to Page 3 of 5, again, we see the measurements taken. The first survey site 1-1 is the ambient measurement. Site 1-2, same location, but one hour measurement taken of the noise source, and again, we see it is very close to the ambient, slightly above, but not really enough above to be considered a violation.

And then finally another ambient was taken at the conclusion that we cite, 1-3, and due to the fact that was a little later in the day we see some slight increases in some frequencies and some decreases in other frequencies as far as comparing it to the previous ambient. Again, the results of 1-1 and 1-3 are very, very similar.

Page 4 of 5 is a graphic representation of what was measured. Again, we see that the U of I School of Medicine is very close to the ambient. If we look at the regulatory limit at 2,000 and 4,000 hertz we see that the measurements indicate quite a bit of exceedence, especially 4,000 hertz. This is largely due to insect noise and is not really related to either the School or -- this is basically due to the ambient level.

Another comment on this graph is this is an octave band graph. The Board

rules refer to the octave bands as probably the most common type of Pollution Control Board measurement. Third octave bands are used in some cases which gives you a finer gradation. If we were looking at third octaves right now we would see three times as many points plotted as we're seeing on this graph. Twelve octave bands we would see twelve times as many points plotted or a much more detailed picture of the sound sources present.

Then following on Page 5 of 5 we have a map that's hand drawn, not to scale, of the area in question. This was a map drawn by Mr. Doug Tolan who was working for me at the time, and I also checked it myself for accuracy, and it is a reasonably accurate representation of the area.

I would draw everybody's attention to the upper left-hand corner where we have the University of Illinois School of Medicine, and at the bottom of the building

by the looks of the diagram there are some trees and there are two square boxes, one box has six circles in it and one box has two circles in it. Those are representations of air-conditioning units located on the ground. The one labeled Carrier on the left-hand side with the six little circles on the top would be the unit where I did identify a very noticeable 57.3 hertz tone.

The distance from the complex, especially the air-conditioning area, to the Furlan residence has come up several times this morning. To the best of my knowledge the distance was in the order of approximately 500 feet, and I would be looking at from the ground based air conditioners to the Furlan residence with a parking lot in between and then a creek, grassy area and wooded area.

If I could take the liberty to continue on, the report in the letter does

describe a 57.3 hertz tone that I personally observed in the Furlan residence and also at the Carrier unit located on the grounds of the School. The characteristics acoustically of that frequency is that it tends to be very penetrating of a normal structure. By normal structure here I'm referring to a home or a house. Based on the testimony of Mrs. Furlan she did describe that she heard in her house --

MR. DEVINE: I'm going to object to the hearsay at this point.

MS. FRANK: Okay. Mr. Zak is an expert witness although Mrs. Furlan has not so qualified him. He is recognized by the Board to be one and his resume stands for that, so I am going to allow him leeway in opinions on this. In a normal proceeding I suppose it would proceed as an offer of proof. If we were going -- well, it wouldn't really because I'm going to allow the testimony, but again, you may move to

strike it later if you so choose.

You may continue.

- A. Mrs. Furlan characterized the sound of the emissions coming from the School as a penetrating roar which is not inconsistent with frequencies in the 50 to 60 hertz range. The reason being is the typical house -- and her house, I had been in her house several times. A typical structure of residential nature will filter out the higher frequency sounds such as highway noise -- typical highway noise, any of the higher pitched sounds.

Low frequency or to put it in more layman's terms, say rumble or base, does penetrate that kind of structure very readily, and I could hear the 57.3 hertz plainly in the house. In addition, Mr. Ferguson testified that upstairs in his bedroom that was the only part of his house where he could hear a sound coming from the School. And again, this is not inconsistent



with the 57.3 hertz.

The third witness, whose name I failed to write down that was a friend of the Furlans, indicated that the sound was like a train or a plane roar, and again, when recording airplanes and trains we'd see quite a bit of energy in the general vicinity of 31 1/2 hertz to 125, so 57.3 hertz would be very characteristic of a layman describing train or plane noise.

Based on the descriptions from the various witnesses, it does seem that they are hearing a noise that they are testifying that does disturb them.

MR. DEVINE: Wait, now I object. This is beyond the scope of expert testimony. I also object to his testimony that despite the fact that he measures trains and planes at 31 degrees, 57 degrees is consistent with what a layman would describe unless he can demonstrate some expertise in the area of actually measuring what laymen would

describe that as. I think that that's impermissible opinion testimony and not subject to expert.

MS. FRANK: As to your first objection, I'm going to sustain the objection. As to the second, I'm going to allow it and also remind you that you need to object at the time that he's stating it so that we're not jumping back considerably.

MR. DEVINE: Sure.

MS. FRANK: I'm not disallowing the objection based on that. I think that he has the expertise to characterize -- he has heard lots and lots of witnesses testify as to what sound sounds like to them, and I believe he has the expertise to make those statements.

MR. DEVINE: Then I would ask that this testimony kind of proceed in a little more normal fashion. I've kind of allowed him to proceed in the narrative with a great deal of latitude. Now I think it's appropriate

that we have a little more formal question and answer type of testimony.

MS. FRANK: That's fine. Mrs. Furlan, will you continue and ask the witness questions.

MRS. FURLAN: Can he finish his last statement so I can refresh where he was?

MS. FRANK: No, because I have ruled he can't make that statement.

Q. (By Mrs. Furlan) How do you see the levels and frequency of noise interfering with our property, with our daily life?

MR. DEVINE: I object. I think that's beyond the scope of expertise. That's the area for testimony by people who have testified.

MRS. FURLAN: Can I ask then how that noise level would interfere if I take out our property?

MS. FRANK: No. You can ask Mr. Zak what he experienced when he was at your house, but you cannot ask him how it

would -- it is for you to testify as to how it interferes with your life or your property.

MRS. FURLAN: All right. How did that sound affect -- I can't say lifestyle. He didn't live there.

MS. FRANK: You can only ask him questions which he would have knowledge and understanding of.

Q. How did this sound affect you while you were at our property?

A. The sound was audible.

Q. And how did it -- go ahead. How did that affect you?

A. Other than the fact that I could hear it, it had no affect on me.

Q. How long were you in the house with what you're referring to now?

A. Perhaps an hour.

Q. You were in our home for an hour?

A. Yes, I believe it was approximately an hour.

Q. Is there any other factor that would magnify

this sound to our home?

A. The two factors, one factor that's well established, the filtering affect as I testified to. Another possibility is if there is any degree of resonance due to room dimensions. If that is present that can amplify the sound inside the house.

Q. As to where the noises originate, is there anything there that would be a factor as to -- God, I don't know what words to use, to magnify or amplify or move it along?

MR. DEVINE: I think I'm going to object. That's asked and answered. She's repeating her previous question.

MRS. FURLAN: No, you know what I'm trying to get at? If you shout at a wall, it comes back, you know, or if something is in a tunnel, you know what I'm trying to say?

MR. DEVINE: Echo?

MRS. FURLAN: Yeah, how would you ask that?

MR. DEVINE: Your Honor, I don't want to assist.

MS. FRANK: Mrs. Furlan, I believe the first question had to do with magnification at or around the house. I will allow a question as to if there was anything on the School's property that magnifies.

- Q. Is there anything on the School's property that magnifies --
- A. Yes.
- Q. -- or directs sound, do you know? Restricts or rejects?
- A. If we look at the map on Page 5 of 5 we can see that the Carrier unit located directly beneath the building -- the building wall is quite high, several stories high, quite wide and tends to act as a band shell such that the noise -- any of the Carrier noise directed at the building, which is about half the noise, and noise tends to radiate in all directions, is going to reflect off the wall and be reflected in the direction

of your neighborhood.

So you have the noise from the Carrier that is not reflected traveling directly toward the residential area. And then in addition the noise from the back of the Carrier unit is bounced off the wall and also is directed to the residential area.

Q. On this diagram the -- I don't know if this is being picky. The way the School -- it looks like the building is here and our residence is here.

MS. FRANK: You need to be specific in what you are describing for the record.

MRS. FURLAN: Here's what I want to say. This building, instead of being like this is really more like this.

MS. FRANK: For the record --

MRS. FURLAN: I don't know how to tell you that.

MS. FRANK: -- Mrs. Furlan is pointing to the area on the map that is marked Illinois School of Medicine older portion,

and what you seem to be saying is that instead of being tilted as far north you believe that it is more in an easterly direction so it's more --

MRS. FURLAN: Instead of this far south, it is more easterly. Thank you.

MR. DEVINE: Well, that's testimony but I object that she testified to it.

MS. FRANK: Is there a question for Mr. Zak based on that?

MRS. FURLAN: No, but I wanted you and whoever is going to read this to know that.

MS. FRANK: Mrs. Furlan, that is something that you need to bring up when you testify again. Right now you're sort of acting as an attorney. Attorneys can't testify, they can only ask specific questions.

MRS. FURLAN: I can do this what, at closing?

MS. FRANK: No. You can get a chance to do what is called rebuttal testimony and



you will get to make statements.

MRS. FURLAN: Okay, thank you.

And how do you suggest from your experience, from your knowledge of this problem, how can it be handled?

- A. There are a number of approaches that can be used. One common portion of my testimony before the Board is to suggest the economic reasonableness and technical practicability of solving a noise problem.

Should the Board decide that this 57.3 hertz is a problem and want to pursue potential solutions, there are a number of possibilities based on my experience. I can readily think of three approaches to use with this type of situation along with an approximate cost for each one.

Potentially the least expensive approach would be to relocate the unit to the northern side of the building, and the building I'm referring to -- I'm on Page 5 of 5 of the diagram. I'm looking at the

School complex building, and I'm thinking of moving the Carrier unit from where it's located around the corner to the northwestern end of the building.

The Illinois EPA has moved units of slightly smaller size 2 or 300 feet when our headquarters building had noise complaints about EPA air conditioners. The cost involved when we moved seven units approximately three years ago was on the order of \$18,000 for piping and labor.

A second possibility would be to enclose the carrier unit with an acoustical enclosure adding intake -- large intake duct work, large exhaust duct work and using the Digisonix noise cancellation technology that has been proven effective in the low frequency range at a cost in the neighborhood of 13,000 to \$20,000 based on my experience of using that technology on air handling equipment and projects for Illinois EPA.

The third potential method of reducing the noise from the Carrier unit would be if the unit is an older model, which I'm not sure how old it is, if it were an older model to replace it with a ground source unit. The newer ground source units are totally noiseless. The cost on a ground source unit of that size, which I researched for a similar noise case, would be on the -- would probably run approximately 30 to \$60,000. Those would be the three possible ways that could be utilized to reduce the tone at 57.3 hertz should the Board decide to do so.

MS. FRANK: Okay. Mrs. Furlan?

Q. The last suggestion or option you gave was replacing a unit. Is there any way anybody could justify spending that kind of money for an air conditioner?

MR. DEVINE: I think this is probably well beyond the scope of anybody's expertise unless they're spending the money

themselves.

Q. Okay. Does this unit in energy savings pay for itself?

A. Based on my experience dealing with the ground source technology companies, their estimate is typically a six- to ten-year payback for the unit on energy savings to lower utility costs.

Q. So then it would pay for itself.

A. Eventually, yes.

MRS. FURLAN: That's all I have. Thank you, Mr. Zak.

MS. FRANK: Mr. Devine?

MR. DEVINE: Thank you.

CROSS EXAMINATION

BY MR. DEVINE:

Q. Let's talk about the last thing you said, a six- to ten-year payback. In order to really know about this building and this unit and how soon, if ever, it would pay for itself, you need to know a lot more than you know right now, wouldn't you?

- A. I would need to know, again, if we're dealing with a virtually brand-new unit or an older unit.
- Q. So you don't know how old the unit is.
- A. That's true.
- Q. You would need to know how efficient the unit is, wouldn't you?
- A. No matter how efficient it is, the ground source technology now has proven to be -- even compared to the best technology, to provide a payback in about ten years. If the technology is older, the payback is in three or four years.
- Q. The pay -- does the payback include throwing out, in essence, a perfectly workable unit?
- A. Yes. But again, the payback time period is very dependent upon how new the unit is. An older unit, payback is relatively quick. If you've got a new unit it would be a relatively long period of time of paying that back.
- Q. It also depends on, I would suspect and

correct me if I'm wrong, the size of the building that the unit is cooling or regulating because that affects, I assume, how much energy is required to run the unit, doesn't it?

- A. It would typically -- the larger units are more expensive than the smaller units but then they're cooling a larger space. They're also using proportionately more electricity to do that. The size factor, if anything, would probably tend to argue in favor of changing out when you have a larger scale unit than when you have a smaller scale unit typically because I think the cost per ton of the units and the labor involved is somewhat less per ton on the very large units as compared to the very, very small units.
- Q. The question is though that's a factor that would be important to you in making the determination that you've just talked about in general terms.

A. Yes.

Q. Okay. It would also be important to know if this were the only unit cooling this building and ran constantly during summer season or not. That would be important to know, wouldn't it?

A. Yes.

Q. In fact, you don't know how often this particular unit, the one that you've labeled as Carrier, runs, do you?

A. I know that it runs a considerable length of time during the warm season in Rockford, but that would be the extent of my knowledge of its running.

Q. They have other units that they use, isn't that true?

A. Yes.

Q. So sometimes they run the other units instead of this one, sometimes they run the other units in conjunction with this one. Is that your understanding?

A. Yes.

- Q. And you certainly wouldn't be in a position to tell me, for example, from June 1st of this year until today's date how many days that thing was turned on.
- A. That's correct.
- Q. Anything you said would be total speculation on that.
- A. That's right.
- Q. And this issue you've discussed about the 57 megahertz refers only to this particular unit; is that right?
- A. If I could correct you, it's 57 hertz.
- Q. I'm sorry, 57 hertz refers only to what's coming out of this particular unit that you have designated on your little diagram that she says is incorrect as Carrier.
- A. Correct.
- Q. Okay. Has nothing to do with the heating equipment in the building.
- A. That's correct.
- Q. Okay, so if Mrs. Furlan says she has problems all year round that she describes



in a manner that you say she's described, for example, in December, it's certainly not coming from that unit. You don't know where it's coming from.

A. That's correct.

Q. So if she's experiencing those problems in December none of these three solutions that you've described is going to help her in any way in December at least.

A. Again, assuming the Carrier unit is not operating in the winter.

Q. This is an air conditioner.

A. I know, but I don't know for certain if it's operated in the winter or not. Some do have the capability to be operated in the winter.

Q. But assuming that at the School of Medicine in Rockford, Illinois, which is however north we are up here, they're not operating their air-conditioning unit in December or January, that's not the source of the problem she's describing in those months and the measures you've described wouldn't help

her in those months at all; correct?

A. If the unit is not operated.

Q. Right, okay. And again, do you have any suspicion, reasonable suspicion that they're operating their air-conditioning unit in the middle of the winter out there?

A. No.

Q. You have a couple of times -- well, let me go to your report, and why don't you take a look at your report, and why don't you take a look at the narrative portion of your report contained on Page 2, the third paragraph, okay? And the first sentence of that says, does it not, we discussed the measurement -- I'm sorry, "The instrumentation was set up at the foot of the Furlan driveway." You agree with that?

A. Yes.

Q. Now, from time to time you have testified as though you actually took measurements inside the Furlan home. At least that's the way I interpreted it and maybe I'm

misunderstanding you. Where were the measurements taken that are reflected in this report?

A. Actually two areas. We included the driveway, and then in the last paragraph we refer to measurements that were taken inside the house previous to this.

Q. Is that the paragraph that says a 57 DB tone?

A. That's correct.

Q. Now, where in that paragraph is -- I'm missing it, does it say that you took any measurements whatsoever in the Furlan residence?

A. It doesn't, but in fact, I did.

Q. Okay. Can I see the report that you have with reference to those measurements.

A. There really was no report generated on those specific measurements.

Q. So you didn't do a written report that reflects those measurements.

A. I did not do a written report. Basically I

was present in the house and I had the instrumentation there and ran a quick scan just to see what, if any, frequencies were present in the house. In addition --

Q. Okay. Now, who was present -- I take it this is a little different test than is reflected in this report because this report's talking about what you did outside. Was Scott Jensen present or have an opportunity to be present in the Furlan residence when you took these measurements?

A. No, he was not present.

Q. Was it on July 6th, 1994?

A. No, it was before that.

Q. Do you know when it was?

A. Previous to this report Scott Jensen and I took some measurements on the -- what we referred to as the porch area. No, let me correct that. I don't believe it was the porch area, I believe it's the deck. Scott and I had taken some measurements I believe it was on the deck previous to this report

here.

Q. And the question I have is when was that?

Simple question.

A. Several months before this report was done.

Q. Would it have been as much as a year earlier?

A. It could have been a year.

Q. Do you have that report anywhere of those measurements that you took anywhere from several months to a year earlier of sound in the Furlan residence?

A. I may have. I brought the entire record with me, and I may have it in the record. I'd have to go through the record and see if I have it.

MS. FRANK: Let's take a break then and allow the witness to look for that evidence.

(A short recess was taken.)

MS. FRANK: For purposes of the record, while Mr. Zak was looking for his documentation we have been having a

discussion about briefing. The parties have agreed to simultaneous briefs to be filed on September 3rd, 1996. The Board's procedural rules state that mailed is filed, so as long as the document is placed in a mailbox by midnight on September 3rd, 1996 you have complied with the Hearing Officer's order. And just so that everyone is clear, at the close of the briefs when the Board receives these documents, the record will be closed and they will begin to deliberate and make their decision.

Okay, let's go back to where we were at. Mr. Zak was I believe looking for any report he had on the noise --

MR. DEVINE: I can perhaps start it off.

MS. FRANK: -- from the Furlans' residence from a memory that was taken at some point prior to the July 6th, 1994 date.

Q. (By Mr. Devine) Mr. Zak, I would ask whether or not you have located any report

indicating either the protocol or the results of the testing from the Furlan residence that you have indicated took place sometime prior to the report we've all been talking about here today of July 6th, 1994.

- A. I have located a document that is a letter from Scott Jensen to the Furlans and I received a copy of referring to testing that we had jointly done on September 30th, 1993. That was the date that to answer your question about when the measurements were taken inside the home, there was a brief measurement taken just to verify the frequency of 57.3 hertz.
- Q. Is that reflected in Mr. Jensen's letter there?
- A. No, it's not.
- Q. Okay. Well, No. 1 question, do you have a report of this testing that you say you did from the Furlan residence sometime prior to July 6th, 1994?
- A. No.

- Q. Okay. Now, I think what you're telling me is you know when you would have done this testing based on nothing that you generated but based on a letter that Mr. Jensen did November 3rd, 1993 referencing a meeting that occurred out at the Furlan residence I think in September of 1993, September 30th of 1993. Is that accurate?
- A. It's accurate but also we did take some measurements. It was more than just a meeting. We also took some measurements. I had a malfunction of some of the equipment, and that is one of the reasons I specifically remember that particular day going into the house after Mr. Jensen left, because I only had a minute or two of power in the instrument to take a quick measurement inside the house.
- Q. Okay. Now, and you yourself apparently did not record the results of that test anywhere as far as you can determine from an examination of your own file.



- A. And the reason was --
- Q. Well, is that --
- A. Yes.
- Q. Okay. In this format I'll ask you when I want an explanation, okay? All right. Now, usually, I take it, because of the fact that it happened initially on September 30th of 1993 and then again on July 6th, 1994, when you conduct testing of this sort you arrange to have a representative of the place that is complained of present while you do your testing; is that correct? Is that your usual protocol?
- A. It's usual protocol if we have been working in conjunction with the facility which we have in this case and if work has been completed on reducing noise or hopefully reducing noise. We want to verify what progress was made, and under those circumstances we would then notify the facility, in this case the University of Illinois, and work in conjunction with them

taking the measurements, yes.

Q. Okay, so normally Mr. Jensen should have been expected to have been present while you conducted this test inside the Furlan residence under the protocols you've just described to us; isn't that right?

A. No, that's not correct.

Q. Why is that incorrect? What am I missing?

A. I believe that in September that the work had not been completed yet.

Q. Well, but you had him there while you did all this testing outside the house on that date, September 30th of 1993; right?

A. Yes.

Q. That's why you wrote the letter.

A. Yes.

Q. Then you left. You did -- well, then let me make sure that I have the sequence of events correct here. You did this testing outside. You determined, I believe, that they were -- there were no numerical violations at this point first of all; is

that right?

A. Yes.

Q. Second, you determined your equipment was malfunctioning; correct?

A. I had a battery problem, yes.

Q. Mr. Jensen left; correct?

A. Yes.

Q. And after you determined you had a battery problem so your equipment wasn't functioning, after Mr. Jensen left, you said, well, let's go inside the Furlan residence, and that's where you made this measurement that you talk about not in any report made simultaneous with September 30th, 1993 but a report you made some nine months later on July 6th, 1994; is that correct?

A. Not entirely. To try and help clarify this --

Q. Well, just tell me what's incorrect about that statement.

A. The last paragraph on the July 6th survey,

1994, is a statement that is relative to and was actually measured on that date. That frequency and that level was measured in the driveway as indicated in that report.

- Q. Oh, okay. Well, then let me ask you, I thought you were telling me that of the 57 DB tone, blah, blah, blah, 57.3 hertz was from inside the Furlans' residence.
- A. If I could clarify that, a year previous to that I had verified that frequency presence inside the residence.
- Q. You got the same precise exact reading?
- A. Probably not. I had the same exact frequency but the level may have been different.
- Q. Frequency is where you're measuring it on the octave band, is that right or wrong?
- A. Yes.
- Q. Okay, so you decided to take a measurement on September 30th, 1993 in the Furlan residence with your malfunctioning equipment, and then on July 6th, 1994 you

took a --

MS. FRANK: Excuse me for just a moment. For the record I think it's important for the Board to know what the problem was with the equipment and whether or not it was a malfunction or a battery or what was happening, so I'm sorry, I'm going to interrupt you, but Mr. Zak, could you explain what the equipment failure or problem was so that the Board will know.

THE WITNESS: Yes, the rechargeable battery in the analyzer was getting very marginal and it would tend to die after a few minutes, so that would allow one to take a measurement for a minute or two that would be highly accurate, be no diminution in accuracy because the entire circuit -- all circuitry is digital, so it either works or it doesn't. The problem I ran into September 30th, the battery would not last long enough to take a one-hour measurement per the Board's requirements. In order to

keep it going we boosted the power to the analyzer from my car battery.

After Mr. Jensen left, the analyzer can be disconnected from the car battery and work for a few minutes before the battery would die and give perfectly accurate results. The Furlans asked for an in-house measurement. I thought it would --

MS. FRANK: Now you're kind of going past what my question was. So what you're telling us is that the equipment when it was on you believe was accurate although it was not allowing you to take as long a reading as you would have normally taken.

THE WITNESS: Yes. It would not take as long and also when the battery voltage would drop too low there wasn't sufficient time to make a permanent record of what was measured. It had to be measured visually. It was highly accurate but it was only possible to get the information visually as opposed to a permanent.

MS. FRANK: So you couldn't get a readout as you normally would.

THE WITNESS: No readout and no disc record.

MS. FRANK: Thank you. Now Mr. Devine, you may continue.

Q. Did you have anything to do with the design or manufacture of this instrument?

A. No.

Q. So when you say it's highly accurate, I mean, that's a subjective belief on your part. You don't really know that it's highly accurate.

A. Yes, I do.

Q. How do you know that?

A. I've calibrated the instrument numerous times and I'm very familiar with the circuitry and technology of what is used in the instrument. I specified with various manufacturers exactly what I wanted and I have used this instrument for thousands of hours and am intimately familiar with all

the workings of the instrument.

Q. So you've calibrated it before in a weakened state such as this.

A. Yes.

Q. And what's the reason that a one-hour requirement or measurement period is desirable as opposed to one minute or less?

A. The Pollution Control Board requires one hour.

Q. Is there any reason or is that just for the heck of it?

A. That's based on regulatory hearings going back to 1987. The one hour requirement was introduced by General Motors. GM thought that the one hour Leq would be the preferable way to take measurements. I performed research with a private consultant funded by Energy Natural Resources from 1990 and '91. We had regulatory hearings before the Board on the time duration for Leq, and our result indicated that one hour Leq for most situations was the most desirable way



to take the measurement.

For reasons of fluctuation the one-hour Leq gives a pretty accurate reflection of human response to various levels of noise.

Q. So you don't disagree with that standard, that one-hour requirement.

A. No.

Q. You think it's the best way to determine whether somebody is actually in violation or not in violation.

MRS. FURLAN: I object. You're asking his opinion. You didn't let me do that.

MS. FRANK: At this point I will allow the question, but I also would like to state for the record that the Board promulgated these rules, it's well aware of why or why not one hour is the time period of choice, it's the body that decided on it, so we don't need to go in depth as to whether an hour is what it ought to be or not because the Board has plenty of knowledge on that

issue.

- Q. In any event, this test of September 30th was not even close to an hour. It was a minute or so.
- A. That's correct.
- Q. Okay, and in fact, before we got off -- I got off the track a little, not you, I'm sorry. You, in fact, can't say that on September 30th of 1993 in the Furlans' residence that measurement was 57.3 hertz. It was probably something different than that.
- A. No, I can categorically state that it was definitely 57.3 hertz.
- Q. Maybe I've confused you inadvertently. I'm sorry. The 57.3 you testified I believe was the measurement you drew on July the 6th, 1994 at the base of the driveway. Is that right or is that wrong?
- A. That's correct.
- Q. I thought I asked you and I thought you answered as follows. I thought I asked you,

you mean that you got the precise exact same measurement on July 6th, 1994 in the driveway as you did on September 30th, 1993 in the house and I thought you said no, we probably didn't get exactly the same measurement. Did I misunderstand you?

- A. You may have, because what I referred to, there was not the frequency at 57.3 hertz but the decibel level at that frequency.
- Q. I'm sorry. I was the one who was mistaken then. The 57.3 frequency is where you measured at.
- A. Correct.
- Q. Okay, so you measured -- we know that you say you measured at both frequencies on or at that frequency on both days.
- A. Correct.
- Q. 57 decibels is what you recorded on -- in your report of July 6th, 1994 on July 6th, 1994.
- A. Correct.
- Q. And that's probably not the decibel level

that this machine would have recorded on September 30th of 1993, is it, in the residence?

A. Probably not.

Q. Okay, and in fact, you don't have any specific recollection what that was.

A. That's correct.

Q. And you didn't record it anywhere.

A. That's correct.

Q. And I presume, but maybe I'm wrong, that if you had measured this frequency on the 6th of July, 1994 from some other place you would have probably received a different decibel reading than 57 if it was a place other than the driveway; is that right?

A. Probably, yes.

Q. For example, if you were in their house you probably wouldn't have recorded a 57 decibel tone.

A. It could have been higher, it could have been lower, that's correct.

Q. Okay. The solutions you discussed, you

talked about spending some money to relocate the unit to the -- I think you said the north side of the building; is that right?

A. That's correct.

Q. And that would certainly help out, if there's a problem, Mr. and Mrs. Furlan; is this right?

A. Correct.

Q. But if there's neighbors on the north side of the building, you're not really solving anything, are you? Or maybe there's some reason they would be less offended by this noise.

MRS. FURLAN: Can I object to that? He's making an assumption that maybe would be -- you're painting a picture that isn't right. It's not right what you're doing.

MS. FRANK: Mrs. Furlan, the question is an allowable question. Mr. Zak is a noise expert and I believe Mr. Devine is trying to find out how the noise would be on the other side of the building. That was

one of the solutions that was proposed as part of his direct testimony from you, and Mr. Devine has the right to ask him questions about it.

MRS. FURLAN: Thank you.

- A. In answer to your question, from memory, the north -- it's kind of a northwesterly direction of the end of the U of I building, would band shell the noise out in a direction that is -- where the nearest residence that would be situated like the Furlan residence would be considerably further away than the Furlans are currently from the present orientation.
- Q. Is that shown on your diagram that's attached to your report where the nearest residence would be?
- A. No, it's not.
- Q. And you saw no reason to do it at that time. I'm not suggesting in any way that this diagram is deficient, but there was no reason to put another resident where the

other residences were; is that correct?

A. That's correct.

Q. When is the last time you were out there?

A. It's been over a year.

Q. Do you know how many times in total you were out at the Furlan residence or the School?

A. I would guess about half a dozen times.

Q. Over a two- or three-year period?

A. Yes.

Q. Okay, and the last time at which was over a year ago?

A. Yes.

Q. And no time in which did you spend more than an hour or two?

A. No, there was a couple of visits that were -- entailed virtually a whole day.

Q. Is it possible that there are residents out here that would be affected or are you pretty darn sure that there would be nobody that would be affected?

A. I'm pretty darn sure nobody would be affected

- Q. How far away would somebody have to be in a northwesterly direction not to be affected in your view as an expert?
- A. About twice the distance of the Furlan residence to the present Carrier unit.
- Q. So if you're within a thousand feet you'll hear a noise. It will be a perceptible noise.
- A. That's true, yes.
- Q. And I take it -- you talked about relocating seven units at a cost of \$18,000. That doesn't necessarily translate to one-seventh to relocate this unit now, does it?
- A. That wasn't the intent. The intent --
- Q. I understand but it doesn't, does it?
- A. No.
- Q. Okay. Can you give us any kind of accurate estimate as to what that would cost or not?
- A. Just to the accuracy of what it cost EPA to relocate seven units.
- Q. Okay, three years ago.
- A. Yes.



Q. Okay. Now, you talked about enclosing the Carrier unit at a cost of 13 to \$20,000.

A. Yes.

Q. Okay, and again, if the Furlans are complaining of things that are happening when this unit isn't turned on, that's not going to be cost-effective at all because they're complaining of other noises than this unit, aren't they?

MRS. FURLAN: Can he do that?

A. That's true.

MRS. FURLAN: He's giving a yes or no answer. I could not ask a question with a yes or no answer.

MS. FRANK: Right. This is cross examination. You can ask a yes or no question.

MRS. FURLAN: Thank you.

Q. When you were out there on July the 6th of 1994 the wind was blowing from the Furlan residence -- or I'm sorry, the wind was blowing from the School -- a slight wind, to

the Furlan residence. Is that not true?

A. Yes.

Q. Okay, and that would certainly have some affect on the travel of the noise and its ability to travel certain distances, would it not?

A. Probably not, and I need to explain why it would probably not. We're talking a wind of zero to three miles an hour which is virtually calm conditions, so it would be a neutral type of situation. It wouldn't help it and it wouldn't hinder it.

Q. If the wind is blowing the other direction, say at a stronger than zero to three, it's going to mean the Furlans are less likely to hear noise.

A. That's correct.

Q. The humidity was pretty high that day. Do you agree with that?

A. Yes.

Q. The higher the humidity the farther and faster the -- or at least the farther the

sound is going to travel; is that correct?

- A. With a distance of 500 feet the effects of the humidity would probably be close to negligible. We note the humidity mainly to be sure we're within the specifics for the instrumentation itself.
- Q. You mean humidity has no affect on how far sound can travel?
- A. It would have an affect but I think it would be measured more in miles than feet so that we're talking a distance of 500 feet. Any affect of the humidity would be fairly negligible.
- Q. What was the reasoning for setting up the measurements on July 6th of 1994 at the foot of the Furlan driveway as opposed to, say, in their backyard or some other place?
- A. We chose the location where we thought we would get the measurement as close to the noise source as practical. Any other location would have either been further away or could have induced amplification due to

reflection by the side of the house.

Q. And if it's further away, that means it's less audible to the human ear?

A. That's correct.

Q. You didn't put it, for example, on the west deck where the Furlans say they -- which the Furlans say they don't use because the noise is bothersome to them. Didn't take any testing from that site; is that correct?

A. Not on that date.

Q. Now, during this period of testing, you've heard testimony and I think you agree, that both Mr. and Mrs. Furlan and Scott Jensen were present; is that correct?

A. Yes.

Q. And there was some reference to communication by walkie-talkie. I'm assuming that was by walkie-talkie from the Furlan residence to somebody at the School plant itself so they could turn on and off the air conditioner; is that right?

A. Yes.

- Q. You were able to conduct face-to-face conversation with Mr. Jensen and the Furlans in a normal tone of conversation, weren't you?
- A. Yes.
- Q. Okay. You didn't physically feel any vibrations from this unit or anything else, did you?
- A. No.
- Q. Were you able to hear the gurgling fountain that I've asked the Furlans about?
- A. No.
- Q. Don't remember it or --
- A. I didn't hear it. I don't remember it and I didn't hear it.
- Q. You made note -- do you know if they had it in place at that time?
- A. I don't know.
- Q. You don't know if it was turned on, turned off, not existent or whatever reason?
- A. I don't know.
- Q. Would you have recorded it if you had heard

it? Is that why you're so certain you didn't hear it?

A. If I would have heard it, yes, I would have made a note. There would be a very, very brief note that I heard that.

Q. Now, as I understood it, the purpose there was to determine whether the School was within the regulated octave bands; is that correct?

A. Correct.

Q. And referring to the narrative portion of your report, says when there was an ambient measurement -- well, ambient measurement means before the School turned on its air conditioner; correct?

A. Correct.

Q. The measurement slightly exceeded the nighttime limits in most of the nine regulated octave bands.

A. Correct.

Q. Does that mean that if this were coming from some control level and external source that

there would have been a problem as far as the EPA was concerned?

A. No, but I need to explain that, why there wouldn't be a problem with the EPA. If the Furlans complained about another noise source that we could identify, that might have been a problem then. As long as whatever sound was present, let's say the ambient, and nobody's complaining about it, as far as we're concerned there's no problem then.

Q. But in terms of audibility to the human ear it was actually above the standards that the EPA sets for it.

A. These are Board standards, not EPA standards.

Q. I'm sorry.

A. That's all right. It's true. What tends to happen with the Board standards as far as having an ambient present, the ambient really becomes the Board's standard, because what's applied is the ambient level. If the

ambient is above what the Board's calling for in its regulation, then in effect the -- we're measuring against the ambient. If the sound source is -- and in this case is true, say three decibels above the ambient, it's close enough to the ambient that we would feel there's no violation there.

Q. Well, actually I want to correct you. In no case, as I read your report, did the ambient increase by as much as three decibels; is that correct?

A. I'd have to look in the report. If I understand your question, if we look at Page 3 of 5, specifically --

Q. A thousand?

A. -- at a thousand we start out with an ambient of 35 and we completed the measurement and took another ambient, got the same ambient measurement. We got 39 for the one Leq and also -- but we got a 39 for the ambient, so the ambient had actually gone up by itself four decibels during that



period of time. If we look at, say, 2,000 hertz, the ambient there actually went down a little bit. The School was putting out 35, the ambient was 32, but again, that's within three decibels. And in my opinion, even though it's three decibels above the ambient, it's still close enough that it wouldn't be appropriate to call that a violation.

Q. In fact, on the 1,000 band the ambient when you finished up is equal to the one hour Leq.

A. That's correct.

Q. Okay, and in all other cases it's within one or two other than the two we've just talked about.

A. That's correct.

Q. And we're talking about what you hear. If I understand it, what this chart on Page 3 of 5 shows us is a way to measure the way the human ear would hear an increase over the ambient from an external source of noise; is

that right?

A. Yes.

Q. Okay, so what you're telling me is when you turn on this air conditioner or when somebody from the University of Illinois College of Medicine turned it on at your direction the increase was a slight increase in the actual amount of sound that the human ear could detect in terms of decibels.

A. Yes.

Q. And it's definitely small enough that it fully fell within your numerical standards; correct?

A. Yes.

Q. Why is it that the Board does not regulate tones in finer increments than one-third octaves?

A. The regulations were passed in 1973. The technology for measuring sound at that point in time made it somewhat difficult to measure in third octave bands. The current technology makes it very, very easy to

measure twelfth octave bands, twenty-fourth octave bands and even finer than that.

Typically when we take measurements now we take them in very fine increments and then combine those fine increments into the larger increments of the Board regulations and then present the data to either the Board or the complainant, the respondent, whoever wants the information we then supply the information to. But we typically take it in very fine increments to be able to apply that to noise control engineering.

If somebody wants to know specifically, like for example in this case here, we can use this as an example, where is the problem, we can say it's at 57.3 hertz which is for noise control engineering work or for electrical engineering work, frequency is always a very important piece of information to have on working on solving the problem.

Q. As you sat in the Furlans' driveway on July 6th of 1994 most of the noise you heard came from birds and bugs. Am I right?

A. That's true.

Q. And turning on that air conditioner just barely or slightly increased the noise level above that.

A. Yes, in the driveway.

Q. At one time you referred to the testimony of the friend whose name --

MRS. FURLAN: Mr. Seger.

Q. Mr. Seger, that's correct. Now, as I understand it, the description of a plane noise or a train noise would be something that you would expect to find in the area of 30 to 40 DBs, not 57 DBs; is that correct?

A. Well, I need to -- I think you misstated your question. I think you're talking about hertz as opposed to DB and hertz being the frequency. For aircraft and trains the sound tends to fall in the range of typically 31 1/2 hertz to 250 hertz, so it

tends to fall in that general range. The description most people give of either plane or a train is when it's at some distance away, and over a distance the lower frequencies tend to predominate more than the upper ones, and we would be seeing a 31 1/2 hertz through 125 hertz as being descriptive of those two noise sources.

Q. Well, you actually measured in the allowable levels as low as 31 1/2 hertz all the way up to 8,000 hertz; right?

A. Correct.

Q. So all the noises that you detected fell in that range; right?

A. I don't understand the question.

Q. Well, you're simply saying the type of description -- maybe this would be a fair way for everybody to understand. Is what you're saying is the fact that he described it as perhaps a noise of a train it's not inconsistent with him hearing some noise at the 57.5 (sic) hertz level.

A. Correct.

Q. Okay, but there are a number of noises that the human ear can detect at that level -- or strike that.

Okay, and you're saying that you at some point from the driveway there measured a noise that was also detected at that level, is that right, at 57.3 hertz?

A. Correct.

Q. Okay, and you described it, indicated that most people when they talk about a train or a plane, they talk about hearing them at a distance; is that right?

A. That's correct.

Q. And your testimony is presumed or I guess based on the presumption that that's what this gentleman is talking about; is that right?

A. Yes.

Q. I mean, certainly as you stood there at the foot of that driveway it didn't sound like a train was running through their yard, did

it?

A. No.

Q. Didn't sound like an airplane was warming up or taking off next to them, did it?

A. No.

Q. Nothing close to that.

A. No.

Q. It was easy to carry on a conversation in a normal tone, face to face.

MS. FRANK: That question's been asked and answered.

Q. Okay, and under direct examination you said the hour you were in the Furlans' home, that noise had no real effect on you other than that you could hear it.

A. That's correct.

MR. DEVINE: Can I take about two or three minutes to review my notes?

MS. FRANK: (Nods head.)

(A short recess was taken.)

MS. FRANK: Let's go ahead and go back on the record. Mr. Zak is under oath, and

Mrs. Furlan, you may now ask any redirect that you have.

REDIRECT EXAMINATION

BY MRS. FURLAN:

- Q. You mentioned that 57.3, I believe, frequency. Is there any other reason why you were interested in that?
- A. Yes. If we could look at Page 3 of 5 of the octave band survey data of July the 6th, 1994 and we look at the site 1-2 where we took the one-hour Leq of the noise source, if we look at the numbers going from left to right, at 31 1/2 hertz we've got 58 and at 63 hertz we've got 64, at 125 hertz we've got 60. I notice that early on in this particular complaint, and looking back several years, there seemed to be a natural peak in the measurements at 63 hertz.

In noise control engineering whenever you see a spectral peak, as you look across the entire spectrum we see one octave band at 64 and 63 hertz. It's always



of interest why that is. The 63 hertz octave band is composed of 12 one-twelfth octave bands. One of those one-twelfth octave bands is 57.3 hertz, and that's where we find a peak in the energy present at that location.

And also when I went back to the air conditioner we found it, and also I testified about the -- taking a very brief measurement in your bedroom the year before. That's where the peak was and that's why I remembered it because it -- whenever I do see a spectral peak I have a tendency to go back and always check that and see what kind of information I can find out about it.

MRS. FURLAN: Thank you.

MS. FRANK: Do you have any further questions.

MRS. FURLAN: No.

MS. FRANK: Mr. Devine?

RE CROSS EXAMINATION

BY MR. DEVINE:

Q. That peak that you described is a peak that also occurs at the ambient; right?

A. That's correct.

Q. So the peak isn't necessarily attributable to what occurs in between the ambient testings, is it?

A. That's true.

MR. DEVINE: No further questions.

MS. FRANK: Okay. Thank you, Mr. Zak. Mrs. Furlan, do you have anybody else that you wish to call?

MRS. FURLAN: No, no. Unless -- did you say I could answer some of the things that were said now?

MS. FRANK: You will be able to do that after the School's case in chief. They get a chance right now to put on their witnesses and then you will get a chance to answer things, and I don't know if you're planning on recalling Mr. Zak at that time or if it's for statements that you wish to make.

MRS. FURLAN: It will depend on what Mr. Jensen would say.

MS. FRANK: Then Mr. Zak, I ask that you remain here.

MR. ZAK: I will.

MS. FRANK: As much as you'd probably like to start driving back to Springfield.

MR. DEVINE: That's fine, no objection. I would call as my witness Mr. Jensen.

SCOTT JENSEN,  
being previously duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. DEVINE:

Q. You are Scott Jensen and testified earlier here today; is that correct, sir?

A. Yes.

Q. Mr. Jensen, I'm going to hand a copy of your curriculum vitae to the Hearing Officer and a copy to yourself as well, and I would ask that the Hearing Officer mark that as --

would it be Defendant's Exhibit 1?

MS. FRANK: Respondent's Exhibit 1.

(Respondent's Exhibit No. 1 was marked for identification.)

- Q. Respondent's Exhibit 1 and ask you to examine and identify that document, please.
- A. This is the CV that pertains to myself.
- Q. Okay, and just tell us not everything that's on there, but if you could briefly summarize your educational background and your area of what you do at the School and that sort of thing.
- A. I'm employed by the University of Illinois. Essentially I work as a facilities manager. In other words, I have a generalist background to know about a bunch of different things, from the running of the heating and ventilating equipment, to maintenance of the grounds, to telecommunications, to parking, to safety, to a wide variety of different options that are under the supervision of the department

for which I chair -- that I chair.

In my work experience you'll see that my work experience has provided me with a diversity of different types of work that include work that would be involved in engineering aspects as well as construction aspects. My education is from the University of Illinois at Champaign-Urbana where I received a BS in architectural study. Architectural studies do give you a general background into many aspects that are necessary for maintaining facilities, and it is well appropriate as a qualification for me to be working in the present position.

- Q. And you were present, I believe it's been testified to already, at this testing of July 6th, 1994; is that correct?
- A. That is correct.
- Q. And you were present on a previous occasion the following September 30th, 1993?
- A. That is correct.

- Q. Okay. Now, on September 30th of 1993 who was present that time?
- A. Mr. Zak, myself and both the Furlans.
- Q. Okay, and on that occasion --
- A. On the deck.
- Q. Okay, and was -- you've heard Mr. Zak testify that the School was within numerical regulations, and that's your recollection as well; is that correct?
- A. That is correct.
- Q. Tell us, if you remember, about the equipment failure or the problem he had with his testing. I wouldn't characterize it as equipment failure, but do you remember that occurring?
- A. On the September -- yes, that is true, that he did have a problem with the battery. The testing that according to the EPA is normally done in terms of nighttime testing where you'd most likely be in noncompliance, the testing that we performed at that particular time was during the daytime, and

the daytime showed that we were in compliance.

Q. Did you want to be present during the testing?

A. Yes.

Q. Why?

A. Well, to see that things were done correctly, and it was also important in order for the test to be validated (sic) that I would be present because we need to establish an ambient noise regulation.

Q. Why'd you leave before he did the test inside the house?

A. I was not aware that that was going to occur.

Q. He never told you he was going to do that?

A. I believe that he said he may have some further discussions with the Furlans, and it could be that at that particular time I was unaware that any additional testing may be going on inside the house.

Q. Okay. During that testing outside on the

deck, did you have some discussions with Mr. Zak and Mr. and Mrs. Furlan?

- A. The discussions that I primarily had with Mr. Zak were that of informational types of discussions that were required for us in order to perform the test. I had a walkie-talkie in my hand at which then I was giving directions to our own staff to turn on and turn off particular units in order that we could do ambient testing as well as for Mr. Zak then to use the instrumentation that we have during the daytime to help the University to see if there may be a particular piece of equipment that may be in compliance or noncompliance.

Also at the other end of the walkie-talkies we had another representative from the EPA that came with Mr. Zak, and I believe that you said his name was Doug.

MR. ZAK: Yes, Mr. Tolan, T-o-l-a-n.

- Q. And how did the noise in the area inhibit your ability to converse in normal fashion



with either Mr. Zak or with the Furlans?

A. There's no inhibition (sic). We could easily talk comfortably within normal tones of voice.

Q. Did you hear the testimony from Mr. Seger?

A. Yes.

Q. Did you hear anything that sounded like a train or an airplane warming up or taking off?

MS. FRANK: These questions have been asked and answered.

MR. DEVINE: Not of this witness.

MS. FRANK: I believe on your cross you asked them. If you want to briefly go into it again, that's fine, as sort of a way of background, but I remind you that you did cross examine this witness.

MR. DEVINE: I apologize. I forgot I asked these particular questions.

MS. FRANK: You can go ahead and answer that.

A. No, they did not sound like that.

Q. And you were also present during the testing on the 6th of July, 1994.

A. Yes.

Q. And anything substantially different about what you heard in terms of the noise levels or in terms of your ability to converse on that date as from September 30th?

MRS. FURLAN: Excuse me. I couldn't do that. You're saying is there. You're giving him a yes or no option and he's your witness.

MS. FRANK: Your objection is sustained. It is a leading question. If you could rephrase your question.

MR. DEVINE: Certainly, Your Honor.

How did your ability to converse or how did the noise externally differ on July 6th, 1994 from when you were out there on September 30th of 1993?

A. No difference.

Q. Describe very briefly your duties in connection with these air conditioners and

the heating units at the University of Illinois College of Medicine.

A. Well, the heating, ventilating and cooling units are all under the responsibility of physical plant. I am the chief facilities officer for the University and so they all come under our direction. The actual operations of the units are done by staff that I have that would work on the units themselves.

Q. Now, I'm going to hand you, sir, a volume entitled Architectural Graphic Standards. Do you recognize that book?

A. Yes, that's the book that I use as a resource material that's in my office.

Q. That was in your office before you even heard of the Furlans I take it.

A. Yes.

Q. Now, turn if you would to Page 60 -- I think it's 64 of that volume.

A. You mean on Page 66?

Q. Yes, sir. There are two charts that you

have discussed with me on that page, are there not?

A. Yes.

MR. DEVINE: I've handed a copy of that page to the Hearing Officer and would ask her to mark that as Respondent's Exhibit 2.

MS. FRANK: It's been so marked.

(Respondent's Exhibit No. 2 was marked for identification.)

Q. Now, what does the chart physical factors, relationship of sound, intensity level and loudness, what's that mean?

A. It's basically showing you that under a decibel level, how that under normal conditions certain things would operate. As such that what type of decibels would you expect for a certain sound to be emanating.

Q. Okay, and referring to Mr. Zak's report, we see that most of those readings are between 60 and 70 decibels. Do you recollect that?

A. That is correct.

Q. And what does this chart tell us about

readings at that level?

- A. At a 60-decibel reading that is generally considered as inside general office, would be the normal type of decibel reading that you would have, such as if you were to take a decibel reading even in this office right now you would have an overall decibel reading at approximately 60 DB.
- Q. Okay, and 70, which is somewhat louder, is face-to-face conversation; is that correct?
- A. That is correct.
- Q. Okay. Now, there's a chart in the lower left-hand corner of that page as well; is that correct?
- A. That's correct.
- Q. And what's the -- what does that chart show?
- A. It shows that the change in sound level, what would the actual -- apparent changes would be in loudness, how that you would approach that, and essentially if we increased the volume in the decibels by plus or minus three decibels, the book that we're

looking through here identifies that as being just perceptible as in terms of apparent changes in loudness.

Q. How does that square with the testimony of Mr. Zak that the decibel level increases he noted over the ambient level which were within three were slightly perceptible?

A. I would say that that would concur with the fact of what he is saying, that a three DB increase in the sound level is a just perceptible apparent loudness.

Q. How does that square with what you actually observed when the air conditioning unit was turned on on both September 30th of 1993 and July 6th of 1994?

A. I would say that that would be very similar in the fact that you could hear that the air conditioner unit was on so that the air conditioner unit was perceptible and so that we had an increase approximately three DBs. The air conditioning units were perceptible.

Q. Okay.

MS. FRANK: Are you planning on entering this as an exhibit?

MR. DEVINE: I would ask that it be entered.

MS. FRANK: Then we need a little more information about the book, so if the Board wants to go to it they can, so if you can give us an author and a copyright date.

MR. DEVINE: And an edition, perhaps.

THE WITNESS: The book is called Architectural Graphic Standards. The authors would be Ramsey/Sleeper.

MR. DEVINE: Actually Ramsey/Sleeper.

THE WITNESS: This is the seventh edition to the book. The book is actually published by the recognized authority called the American Institute of Architects, and the publisher is John Wiley and Sons.

MR. DEVINE: And when was this particular edition published, if you can tell us that.

THE WITNESS: This was copyrighted in

1981, the first, and I know there's multiple editions to the book.

MS. FRANK: You said this was the seventh, so.

THE WITNESS: Copyright in 1981.

MS. FRANK: Is there any objection to this being admitted into evidence?

MRS. FURLAN: None that we would know of.

MS. FRANK: Then Respondent's Exhibit 2 is entered. Did you wish to enter Respondent's Exhibit 1 also?

MR. DEVINE: Yes, I did, Your Honor.

MS. FRANK: Why don't we go ahead at this time. Is there any objection to the resume being entered in evidence?

MRS. FURLAN: No.

MS. FRANK: Then Respondent's Exhibit 1 and 2 are admitted into evidence.

Q. (By Mr. Devine) Mr. Jensen, how long have you been affiliated with the College of Medicine?



- A. Ten years.
- Q. And could you describe for me what the physical plant is like and the grounds that the School sits on.
- A. We essentially have 157,000 square feet of buildings on approximately 20 acres of land. The buildings were built at multiple times even though the two -- one building basically is a separate building, a single frame building. It was built approximately 1946. The other buildings that were built, one was built approximately 1916, another one was built approximately 1946, another at approximately 1975, and another one in approximately 1976.

All of those buildings are contiguous and they were done at the time that the University was expanding -- I mean, the later buildings were done at the time the University was expanding and locating their presence to this site formerly known as the Rockford Municipal Tuberculosis

Sanitarium.

Q. And I want you -- well, let me get myself squared away before I do that. Your office has at my direction prepared some charts and diagrams depicting the layout of the School and its relationship to the Furlan residence. Is that not true, sir?

A. That is correct.

MR. DEVINE: Now, Your Honor, I would like to mark the large chart and then I have some identical exhibits that are smaller in nature that can also be received.

MS. FRANK: The chart will be Exhibit 4, Respondent's Exhibit 4. I can do that. I don't stick -- you don't mind if I write on it?

MR. DEVINE: That's quite all right. He even left a place for it.

(Respondent's Exhibit No. 4 was marked for identification.)

MR. DEVINE: And should I mark this exhibit separately?

MS. FRANK: If you want to hand it to me I'll just mark it as a copy.

MR. DEVINE: And these photos are also copies, Your Honor.

MS. FRANK: Copies of Exhibit 4?

MR. DEVINE: Yes.

MS. FRANK: Okay.

MR. DEVINE: Your Honor, I also have marked a large exhibit as --

MS. FRANK: Exhibit 5.

MR. DEVINE: -- 5.

(Respondent's Exhibit No. 5 was marked for identification.)

MR. DEVINE: That's fine. I put -- took the liberty of placing Your Honor's initials on there as best I could.

MS. FRANK: That's fine, and that's an aerial view.

MR. DEVINE: Yes, it is, Your Honor, and we also have from that aerial view a copy which I will submit to the court as a copy of Exhibit 5.

MS. FRANK: Okay.

MR. DEVINE: Mrs. Furlan, can you see these okay or would you prefer to look at a photocopy?

MRS. FURLAN: Yeah, if you have it.

MR. DEVINE: I want these back.

MS. FRANK: You have a extra photocopy for her to look at for right now?

MR. DEVINE: Yes, I do.

MS. FRANK: Okay.

MR. DEVINE: May I proceed, Your Honor?

MS. FRANK: Yes, please do.

Q. (By Mr. Devine) Mr. Jensen, we have set up charts here and provided the court and the Furlans with copies of those charts and marked those charts or exhibits as Respondent's Exhibits 4 and 5.

Could you first take a look at No. 4, describe what that is, how it was prepared and what it depicts, if you would.

A. Exhibit No. 4 is a visualization of our

property, and it basically took a blueprint which shows the grading and it shows the slope and the lay of the land. It is a scale drawing for which that under here you can see the -- apparently I've wiped off the scale, but it's at a scale, it is a scaled drawing for which then you can see the actual distance for which that it would be working.

What I've depicted on the drawing is basically this section in white on the drawing is all of the University property. The approximate location of the Furlan residence is over here over on the right-hand side of the exhibit. The units that Mr. Zak was talking about in reference to his particular drawing and then also what Mrs. Furlan was representing to are located right through here. This unit is the 90-ton Trane unit. This one is a 60-ton Carrier unit.

MS. FRANK: You need to describe for

the record what you're pointing at maybe in relation to marks you have on the map.

A. So that I'm looking at first of all where on the exhibit it says air-conditioning units with an arrow pointed to that, that arrow represents the 60-ton Carrier unit.

Q. And that's between Photographs No. 1 and 5; is that correct?

A. That is correct.

MS. FRANK: Okay.

A. Now, in order to get a depiction of where we are relative to our property to their property for which the sound would obviously travel from one property location to another property location, I've taken some photographs that would be of relatively on a condition that would provide for what would be a line of sight, therefore a line of sound travel.

Photograph No. 1 is taken approximately through here and is looking at the location of our air-conditioning units

that were in question by Greg Zak of the 90-ton and the 60-ton unit looking toward their property. That is what photograph No. 1 represents.

MS. FRANK: The location is marked on the map by your No. 1 with an arrow and that is where you were at the time you took the photograph?

THE WITNESS: Yes, that is the approximate location I took the photograph.

- Q. Which of the Carrier units, the 90- or 60-ton is the one that Mr. Zak focused in on at the 57.3 frequency?
- A. It is the one which the arrow is pointing directly to.
- Q. And which one is that, 60 or 90?
- A. That's a 60-ton Carrier unit.
- Q. Does that operate all the time, by the way?
- A. No.
- Q. Does it operate at all from, say, September 15th 'til May 15th?
- A. Weather dependent. You could have a hot

October and you may run some things in October.

Q. But it would be a rare occasion.

A. Oh, in October we basically would shut -- these units would be shut down for the winter. They're taken out of service for winter operations.

Q. Does that unit run continuously say from June 1st to September 1st or are there periods where it is on and periods where it is off?

A. There are periods it is on and periods it is off. We switch the air-conditioning units to being on relative to the air-conditioning load that we may have at present and so that there may be times for which that neither one of these units are operable.

Q. Because you have other units as well.

A. Because we have other units that take care of the load.

Q. Is the unit that Mr. Zak has been discussing, is that on today, do you know?



- A. I don't know.
- Q. Can you give me an estimate of -- an estimate of the percentage of time it would run during the summer months in your experience or not?
- A. If I could just check something through here if you'd like. I'm looking for a notation through here that I asked my staff to prepare for me that in 1994 we ran the 60- and 90-ton Trane units for a total of 1,209 hours.
- Q. Now, that means that's both of them, their hours added together; is that right? In other words, you can't break it down any finer than that, whether the 60 was on 1,208 of those hours and the other one was on one hour or anything differently than that.
- A. The 60- and the 90-ton air-conditioning units can run independently or they can run in tandem, and so that the figures that I've asked my staff to prepare for me would mean that it would either be run -- the 60 would

be run either singly or in tandem.

Q. The same for the 90.

A. The same for the 90. I guess that's the most accurate way I can get the information. I can't tell you in any more finer detail than that.

Q. And that would be during the entire calendar year of 1994?

A. That would be during the cooling season.

Q. How do you define the cooling season?

A. Cooling season would probably start in May and end in October.

Q. Okay. May 1, May 15th?

A. Whenever they're put on line. In some cases you may put units on line in April. It's all weather dependent.

Q. Why don't you continue on and show us what that diagram is exhibiting.

A. So we're taking a view from the air-conditioning units that were questioned. Then we move over to Photo No. 2. We are now looking midway between

the air-conditioning units and the Furlans' home, and this would be the view that we would get, and that would be the view of their house from that standpoint.

Moving again, coming on-line looking at Photo No. 3, in Photo No. 3 we're still on the University property. We're looking through the trees and in this photo that is where you can see their house. Their house is present in the photo and that would represent the west deck of their house.

Then looking back from their home if we were taking -- basically where Hampden Court comes, if we just take a few steps or walk a certain distance off of Hampden Court and then look back toward our property, Photo No. 4 would be looking through here, and therein between these grove of trees you can see our facility in Photo No. 4.

Q. So Photo No. 4 has an arrow depicting the line of view that it is taken; is that

correct?

- A. Correct, and so that what we see in the photo, we'd see a portion of the building right in through here.

MS. FRANK: Right in through here being?

THE WITNESS: Right where it says loading dock and near loading dock. It would be on the north -- it would be basically you're seeing a picture on the north side of the building.

MS. FRANK: Okay, thank you.

- Q. From that area is it possible to see the area that you have marked as air-conditioning units and that you've testified before as to those two particular units? From No. 4 can you see that, those units?
- A. In Photo No. 4 it does not show the particular air-conditioning units. It just shows the building which means that it would -- if the photograph was a panoramic

it would be -- those particular units would be on the far right-hand side of the photo, but they're not evident there.

Q. Are they viewable or are they screened?

A. They're screened.

Q. By what?

A. They're screened by bushes and shrubs and trees and other type of things that would -- that you would not be able to see things from the Furlans' home.

Q. And No. 5, what does that show?

A. Photo No. 5 is actually a picture of the air-conditioning units close to the air-conditioning units standing on our driveway that goes around the building, and now we're looking at the 60-ton Carrier unit. You can see a portion of the 60-ton Carrier unit in the middle of the picture in the bottom, and the rest of it now you see we have shrubbery, we have trees, and you cannot see the 90-ton air-conditioning unit which would be behind the trees.

Greg Zak is referring to the -- when he referred to a correction, you know, in terms of the wall, this would be -- you know, that would be the wall that he was -- the vertical wall that he was referring to that he thought perhaps there could have been a possibility of sound bouncing off the wall toward the Furlan residence.

Q. And can you tell me in terms of distance the distance from where those units are located to the Furlan residence.

A. From this unit through here to the approximate location of the Furlan residence, when you scale the drawing off I'm guessing that it's in the neighborhood around 800 feet from that portion of the building.

Q. And that's -- is that a pure guess or is that a pretty educated guess, and what's it based on if it is an educated guess?

A. It's based upon the drawing telling you how many feet there are per inch and then you

take the measurement by simply putting a ruler on the drawing, measuring the number of inches and multiplying the scale factor that's on the drawing.

Q. And you've walked that distance yourself, haven't you?

A. Yes, I have.

Q. And is that consistent with what the scale drawing tells you you're experiencing in walking it?

A. Yes.

Q. Okay. Turning to No. 5, that depicts, does it not, an aerial view of the School and the surrounding area?

A. Yes. This exhibit is actually produced in this building. It's produced by the Winnebago County Recorder of Deeds. This photograph was taken in 1989 and represents the aerial view, and also representing -- the aerial view also then puts onto it the property line so you can see an exact location of where our property is and where

the Furlan property would be.

Q. Can you show us where the Furlan residence is.

A. The Furlan residence is on Hampden Court which is in the center of the drawing or the exhibit and then you will find where Hampden Court dead ends at the University property. The Furlan residence is just to the north of the dead end and you can see that their ranch style house is in that property.

MS. FRANK: Is it where it says 007 and 14? We're looking at the same spot?

THE WITNESS: Lot No. 14 and 13 just north of the reading of the dead end and Hampden Court.

Q. Now, looking at that from the aerial view, can you show us also on this aerial view where the air-conditioning units, the 60-ton and 90-ton unit are located.

A. The 60-ton and the 90-ton units are located -- well, they're located on this hill in the shrubbery. I'm finding a hard



time actually seeing them in the photograph.

MS. FRANK: By this hill --

- A. It would be right there, and basically we're looking at the building -- the University building basically looks like a square building with a finger that extends off to the left-hand side. The finger that extends off to the left-hand side which then has a northeast facade to it, you'll find the air-conditioning units at that -- near the end of that portion of the building. And from this drawing it's even hard to depict where the air conditioning units are from an aerial view because of the amount of trees and shrubs that are covering it.
- Q. Just maybe to help a tad in terms of the record, directly above that finger that you have described, there's a rectangle with the numbers minus 016 and then 1.03 directly above that; is that correct?
- A. That's correct.
- Q. And if you take that straight down that's

the general area of where that air conditioner is located; is that correct?

A. Yes, that is correct.

Q. Now, I see a -- what appears to be from this aerial view a grove of trees that is directly between the Furlan residence and the School. Do you see --

A. That's absolutely correct. We have a grove of trees that's located here and then there's another grouping of a grove of trees that's directly in front of the Furlans' residence. There's a small little meadow that occurs at the end of Hampden Court that separates the two grove of trees that would be serving as a buffer between the University of Illinois and the Furlan property.

Q. Okay. Can you tell me the dimensions of the, I guess it would be the southernmost grove of trees, if you would, or do you know?

A. I don't know exactly what it would be, maybe

200 feet or something like that. I don't know exactly.

Q. 200 feet northwesterly to southeasterly?

A. Yeah, something in that neighborhood.

Q. And the other grove is somewhat smaller than that.

A. And the other grove is smaller than that.

Q. Can you show us on this aerial photograph, one of the solutions that Mr. Zak suggested was moving these units. Remember that?

A. Yes.

Q. Do you remember where he suggested that --

A. Mr. Zak said that the units located at the northeast portion of this little finger that comes out of the building be located around basically to the northwest end of the building, and if you locate it to the northwest end of the building, then we have houses that would be in here maybe 150, 200 feet away.

Q. Much closer than --

A. In contrast to the about 800 feet away for

the Furlan residence from this particular air-conditioning.

MS. FRANK: Are you talking about then the houses on the south side?

THE WITNESS: I would be talking about the houses that would -- are bordered on Parkview, far left-hand portion of the drawing.

Q. And I see for example -- oh, that's the front. Yeah, lot numbers, for example, 015, 014, 013, 012, do you see those?

A. Yes, yes, I do.

MS. FRANK: Thank you.

Q. Now, Mr. Jensen, you have had the occasion to have contact with the Furlans, reference their complaints over a fairly -- over a period of time. Is that not true?

A. That's absolutely correct.

Q. During that course of time have you done anything to try to lessen the noise that's coming from the University?

A. Yes, we have.

Q. What have you done?

A. We have worked on several units within the University. We hired an independent firm in order to perform testing for us so that we could control it and that we could then see if we maybe had some units in suspect in terms of compliance. We then from that information then made corrections to several heating and ventilating and air-conditioning units to provide for what we thought then to be a place for which the University of Illinois could definitely pass the EPA test.

The type of equipment that we performed we actually -- we performed many different types of things. We put extenders on top of exhaust fans so that you had an acoustical duct work to go up on top of an exhaust fan.

Q. What would that do?

A. What would that do?

Q. Yes.

- A. Well, it works on two points. If you have air that's exiting from an exhaust fan in the facility, one is that you try to absorb the air before -- I mean, absorb the sound before that it goes out because then it has the opportunity to hit back and forth on sound absorbing material before it exits out into that. In addition to that then you actually are directing the sound more in an upward fashion rather than in an outward fashion that would then have the sound going toward the Furlans.
- Q. That's one of the things Mr. Zak talked about; right? Didn't he talk about directing it up rather than bouncing off the walls of the School?
- A. No, I don't believe that he said that exactly. He said that on this elevation through here there's a possibility that the sound may be bouncing off of the brick wall of the building.
- Q. Okay.

- A. But to answer that specifically, we then made corrections to the 60-ton unit by providing the sound rather than to be bouncing off the unit. We basically made an enclosure that was on top of the unit itself, enclosure maybe about 12 inches, 12 to 18 inches for which that when the fans worked, in order to cool, the sound would then bounce off from these type of things, so we actually -- at that particular unit we were bouncing the sound upward rather than having the sounds under a normal condition on a fan to go to the sideways for which that it may have hit the building. So we've already tried to provide for a correction for which Mr. Zak has already indicated could have been a potential added effect to noise transmission to the Furlan property.
- Q. What, if any, other types of measures have you taken?
- A. We have taken a boiler stack and a boiler stack pad on it, a Chinaman's cap, which in

order to describe it basically, you have a boiler on top of the boiler. There's a hat on top of it and it's shaped in a cone. We call it a Chinaman's cap. We replace that whole stack of the boiler and then put in a large boiler stack that just directed everything upward. We wanted to decrease any possibility that any noise that may be coming out of our boilers then may be reflecting and going sideways toward the Furlan property, so that's another improvement that we've made.

Other improvements that we've made on some other air-conditioning units, we've taken the actual exhaust of the air-conditioning unit and rather than having the unit itself just directly exhaust to the outside, we have added duct work on the end of the exhaust. And in the duct work that's added on the end of the exhaust, that duct work is lined with insulation material and it takes multiple turns. So in the process



of taking multiple turns the sound has the opportunity to bounce off one wall, to bounce off the other wall, to bounce off another wall, so basically your sound is reduced for that particular unit, and it's less being emitted on that particular unit because of the corrective measures that we've taken.

Other examples that we have done for units is simply in many cases a fan on top of an air-conditioning unit will have a grill cage. That grill cage then is for protection of the fan so somebody -- basically for a safety reason so someone would not stick their hand into a turning blade but you obviously need to have it exposed. Under those places where we had the fan actually join to the mechanical unit itself, which is a metal-to-metal connection, we replaced those metal-to-metal connections with rubber washers or other type of insulating material to provide for a

less of a vibrating type of sound.

And that was -- we've done what I described in the 60-ton unit in terms of making a box on top of the unit to direct the sound upward, we've done that on additional units. Another aspect that we've done is we've actually purchased some material that was recommended by the consultant that we hired to provide for the -- to provide for a way of lessening the sound.

Q. Is this it?

A. That is the material.

MR. DEVINE: Let me -- could these be marked?

MS. FRANK: Sure.

THE WITNESS: They're a little different but they're similar.

MR. DEVINE: Mark them both please, Your Honor.

MS. FRANK: The one with sort of the tin foil on it will be No. 6 and the other

one will be No. 7, and I can't mark those right now because I don't have any stickers with me, but I will mark them 6 and 7.

(Respondent's Exhibit Nos. 6 and 7 were marked for identification.)

Q. Mr. Jensen, I'm going to hand you first of all what will be marked as Respondent's Exhibit No. 6, and I would ask you to describe that to the court, if you would, to the Hearing Officer.

A. This is a sound absorbing material. It actually is similar to that of a foam and it has a silver Mylar reflective substance on top of it. We use this material on the exterior of air-conditioning units so that it would be able to absorb any sound. It would also then serve as a dampening effect for vibration of sound. You need to have the Mylar on top of it so that the weather would not damage it, so this was used on the exterior of some of our air-conditioning units. Particularly we use that on the

rooftops of the air-conditioning units, and you could see that in presence, say, for instance, on the 90-ton unit.

- Q. Okay, and handing you what's going to be marked as Exhibit No. -- Respondent's Exhibit No. 7, could you please tell us about that.
- A. This particular product is also a sound dampening -- it's a sound dampening material and an acoustical material. In itself it's composed of basically three layers. One is a foam backing, and sandwiched in between the two pieces of foam backing, it's a lead-lined material. This lead-lined material in through here provides for mass. In order to reduce sound with a piece of sheet metal that may be vibrating, you want to increase the mass of the unit so you don't have a piece of flimsy material going that could cause any type of vibration or cause a sound.

This material increases the mass

of the unit. Not only does it increase but we're using this as a sound absorbing material, and this material was installed on the inside of the air-conditioning units where typically you would find the compressor for the air-conditioning units.

Q. Now, during your testimony in the last few minutes you've been talking about corrective measures that the University has taken and you have basically referred generally to air conditioners. How many units does the College of Medicine have, if you know?

A. I'm just -- I don't know. We have a bunch of little rooftop -- we have some smaller rooftop units. We may have as many as ten, ten units.

Q. Now, what of those measures that you have described were used with reference to the specific unit that Mr. Zak made reference to and measured at the 57.3 frequency?

A. That would be in terms of the 60-ton Carrier which again on the -- on Exhibit No. 4 is

depicted by the arrow. We performed sound dampening material installed inside of the unit itself. Next we put a Mylar material, we put it on the top, and we also provided for a separation of the fan cages or the housings that provide for that with the top dampening material.

In that particular unit we also then put this enclosure on the top of the unit in order to direct the sound upward for which that I further described. In addition to that in case that we've had sound emission that may be coming from the unit outward, we basically filled a portion of the bottom of the unit with -- we lined the bottom of the unit with material similar to this and then injected foam into the bottom of the unit. So we have the unit with the bottom of it being injected with foam as a sound absorbing material. We have the inside of the unit prepared with the sound and dampening material. We have the

exterior of the unit where parts have been separated, and we've also put on a hood, shall we say, on the top of the unit in order to redirect the sound upward rather than outward.

Q. This has been an ongoing process, I take it.

A. We did all of these within the period of the -- approximately a year so that we would become then in compliance with the regulations when we asked the Illinois EPA to actually perform night testing to prove the fact that we were in compliance.

Q. And all these things that you did were in direct response to the complaints raised by the Furlans in an attempt to lessen the noise.

A. That is correct.

Q. And how much money, if you know, was spent on these corrective measures that you have described?

A. We spent over \$22,000 in funding for this.

Those funds included for the paying of consultants, it included for the paying of materials, and it also included for the contractors. Not included within that particular \$22,000 is the in-kind labor that was done by our physical plant employees in order to install some of the foam and to do some of the other dampening projects within our air-conditioning units which were a sizable amount of work, and we thought that was the most cost-effective way for us to do it. So the price well exceeded over \$22,000 for which that we've already tried to provide for corrections in order to respond to the complaint.

Q. Do you have any reasonable estimate as to the value of the in-kind labor that was used or not?

A. I haven't figured that out.

Q. And can you tell me whether you noticed any difference or what difference, if any, you noticed after all these improvements were



made and all these measures were taken.

A. There were noticeable differences. We could tell in some particular units, even at the source of the unit, that there was less sound being emanated from the unit itself.

Q. So you noted what you were doing seemed to be --

A. What we were doing did, in fact, work. It did, in fact, reduce the amount of decibels that were being emanated from the unit prior to our work in response to the complaint.

Q. I think you can probably resume your chair now if you'd like to. On your redirect examination when Mrs. Furlan called you as a witness you discussed or were asked of your comparison of the sound between what you heard at the Furlan residence to your neighbor's window air conditioner. Do you remember that question?

A. Yes.

Q. And you said they were comparable and she was getting into --

MRS. FURLAN: No, you can't do that.

MS. FRANK: Yes, he can.

MRS. FURLAN: You can do that? I'm  
sorry.

Q. Was comparable either as to -- she asked you  
whether it was the same type of sound. Do  
you remember that question?

A. Yes.

Q. How about the volume of the sound.

A. Considering the fact that that particular  
air conditioner that I'm speaking of was  
within a short distance of our home, you  
could say that that could be comparable to a  
larger unit that may be creating more noise  
which was a greater distance away. So when  
you factor in the dissipating aspect of  
distance away from the unit, you can  
therefore say that there may be some type of  
apparent equivalency in terms of sound.

Q. What I'm talking about for you to compare is  
when you sit in your own house 25 feet away  
from the window unit and compare that to

when you sit or you stand in the Furlans' driveway 800 feet away from the School's unit and compare the volume of those two units, are they comparable in terms of volume and sound?

A. I would say that that could be true.

MR. DEVINE: I have no further questions.

MS. FRANK: Mrs. Furlan, you may ask this witness questions.

CROSS EXAMINATION

BY MRS. FURLAN:

Q. Mr. Jensen, in that letter you referred to earlier, 1987 --

MR. DEVINE: Is that an exhibit? I'm just asking -- I'm not trying to harass you. I'm asking for purposes of looking at it.

MRS. FURLAN: I understand.

MS. FRANK: Plaintiff's Exhibit 1, I believe. Are you talking about the August 13th, 1987 letter?

MRS. FURLAN: Yes, yes.

Paragraph 4, it says the last words are numerous -- "Our department employees observed the sound at our adjoining property line on numerous occasions and times and concluded that the sound was not objectionable."

This was prior to our calling in Mr. Zak or his office to come and do the reading. You are stating in '87 that there is no problems with the noise emitted from the School of Medicine and it wasn't until --

MS. FRANK: Mrs. Furlan, again, you're testifying. Do you have any questions --

MRS. FURLAN: That's how I interpret what he said.

MS. FRANK: But your interpretation is your testimony. Your job now is to ask this witness any questions that you have that he can answer.

MRS. FURLAN: Okay.

Was this -- are you saying in this letter that you felt this facility to be in compliance?

MR. DEVINE: Your Honor, I'm going to object. The letter is in evidence. It speaks for itself. His interpretation now of the letter he wrote nine years ago I don't think has any bearing or relevance to this.

MRS. FURLAN: Well, it should. I would hope we could all stand up for something we put in writing.

MS. FRANK: Mrs. Furlan, the letter is in evidence and it speaks for itself. There is a rule in law, it's called the best evidence rule, and that is if you have the document, the document speaks for itself and that no further explanation is needed. So based on that the objection is sustained and the letter is in evidence. The Board can read it and see what it was that was said at that time.

MRS. FURLAN: Can I tell you why I want to make reference to this?

MS. FRANK: Certainly. I mean, tell me what you're trying to get at.

MRS. FURLAN: Okay. What I'm reading here, what we have read here, is that there was no problem. It wasn't until we called the EPA to come in and get a reading that they indeed were in -- they were not in compliance. Nothing was done until --

MS. FRANK: Okay. That's information that you can give as part of your rebuttal testimony.

MRS. FURLAN: Thank you.

This book that you've referred to, Mr. Jensen, is that your book?

- A. This was purchased by the University of Illinois. It was purchased by University of Illinois funds.
- Q. So it's owned by the School?
- A. So that it actually is property of the University of Illinois. It was purchased at

my direction as a resource book to have in my own office.

Q. I'd question your familiarity with the book and what's in it because you did not know the name of it when it was questioned. Do you refer to that book with any --

MR. DEVINE: Is she arguing with -- I'd object to --

MRS. FURLAN: I don't mean to argue.

MS. FRANK: Mrs. Furlan, you were getting to a question, I believe, about his familiarity. Try to keep your sort of editorializing out of it and just ask him whatever question it is that you wish to ask him about.

Q. Why did you request that book be purchased?

A. I have seen this book in architect's offices before. The work that I do pertains to facilities. The work that architects do are basically that of design facilities. In contrast to the type of work that I do we need to have facilities that are

appropriately designed in order to provide facilities for the University, and it was a resource that I felt would be valuable for me in terms of understanding facilities better.

- Q. Design for what? Placement of -- I'm sorry, but I don't understand what the -- you mean this was purchased for the design information. Design of what?
- A. I said that typically a book like this is used as a reference material. Architects used this as a reference material.
- Q. For what purpose?
- A. The type of business that an architectural firm would do. Part of what an architectural firm would do would be design of facility.
- Q. Would this be design for appearance, aesthetic or design for efficiency? What would the design be for?
- A. Would you like to take a look at the context of the book?



Q. I'm asking you.

A. All aspects in terms of an architectural design have to be present in the facility, whether it would include for effective sound control, whether it would provide for what suggested placement of equipment may be in the building, the type of heating and ventilating system that you could possibly use, the type of construction that you may possibly want to use, your electrical systems, your mechanical systems.

Q. So it would be all conclusive?

A. So that this is a reference material that provides for background information for all of those particular facets that an architect may use in the design of a facility.

Q. What is in that book that would help you in the placement of noise generating equipment -- that's backwards, in the placement of, for lack of a better term, noise generating equipment. What is in that book that would give suggestions of where to

place equipment as to best minimize noise?

A. It may be in here. I'm not certain. I can't tell you exactly where it is at that point.

Q. Was this book then used by you in --

MS. FRANK: Maybe I can help. I don't believe that the book is being offered as a reference book to how the building or the facility was built or how you designed any aspect of the building.

MR. DEVINE: That's correct.

THE WITNESS: That's correct.

MS. FRANK: You are offering it for the purpose of this one page as to perception of decibel levels.

MR. DEVINE: That's right, Your Honor.

MS. FRANK: So they are not trying to show that this book tells them exactly how to build the building or where to place things. What they are only offering this into evidence for is for the page that they gave you. So if you have questions about

that page, I think they're appropriate. You've asked enough questions that the Board will be able to question the weight of the book as to whether they believe that it is a credible or noncredible book.

MRS. FURLAN: Thank you.

MS. FRANK: But if you have questions about the specific page, you can go ahead and do that.

MRS. FURLAN: No, I don't.

MS. FRANK: Okay.

MRS. FURLAN: Thank you.

Prior to our -- with our initial request for relief from this sound, did you feel that the facility was in compliance?

MR. DEVINE: Your Honor, I object. It sounds as though the question is directed to numeric compliance. That's not an issue in this case. It's undisputed that we are in numeric compliance and received a directed verdict on that issue.

MS. FRANK: To the extent that you are

asking about numerical compliance, the Board has already ruled that the School is in numerical compliance, so you need to be a little bit more clear what you're trying to get at because numerical compliance is no longer relevant.

MRS. FURLAN: If numerical compliance is no longer an issue, then why was all this talk about what was done to bring it to compliance?

MS. FRANK: Right, so what -- tell me what the question is that you're wishing -- I don't understand what you're trying to get at.

MRS. FURLAN: Nothing was done in response to our first request until -- we just had to go farther and farther and get more people, until then when the EPA said, yes, you are in compliance. Then they said, okay, we'll fix it. Now they're saying --

MS. FRANK: Now, that is information that you can testify to when you testify,

and I think we've already gone over that,  
that that's your testimony.

MRS. FURLAN: All right.

MS. FRANK: If you have a question  
about when they began to make corrections to  
their equipment, you may ask that if that's  
what you're trying to get at is the date  
that they began to do that.

Q. (By Mrs. Furlan) Would you tell us the date  
you began making corrections.

And thank you very much.

A. I believe that we started to make  
corrections after our meeting that we had  
with you for which that Dr. Salafsky  
instructed me to see what needed to be  
done. Those corrections were done in 1993.

MRS. FURLAN: All right, thank you,  
that's all.

MS. FRANK: Mr. Devine?

MR. DEVINE: Very briefly.

REDIRECT EXAMINATION

BY MR. DEVINE:

- Q. Did the purchase of this book, the page of which has been marked as an exhibit, title of which is Architectural Graphic Standards, have any connection whatsoever to this litigation?
- A. None.
- Q. You purchased it for reasons other than this litigation.
- A. Yes.

MR. DEVINE: No further questions.

MS. FRANK: Okay. Before we continue, I think I may have mismarked exhibits in the sense that I don't believe we have an existing Exhibit 3 and I will just -- the record should reflect that there is no Exhibit 3 rather than remark everything. I just want to make sure that that is accurate before we move forward.

MR. DEVINE: I believe that to be true, Your Honor. As I recollect the CV was No. 1, the page from the book was No. 2, and then I think the charts were 4 and 5 and

so --

MS. FRANK: Yes, okay.

MR. DEVINE: Thanks for catching that.  
I missed it.

MS. FRANK: So the material will still  
be 6 and 7. We will just show that there is  
no Exhibit 3.

Do you have anything further for  
this witness?

MR. DEVINE: No, I don't, Your Honor.

MS. FRANK: Mrs. Furlan?

MRS. FURLAN: No, thank you.

MS. FRANK: Do you want to -- I don't  
believe you have moved 6 and 7 into  
evidence.

MR. DEVINE: I would ask that all of  
our exhibits, and I know we've asked for  
some, all of them be admitted into evidence.

MS. FRANK: Is there any objection to  
any of their exhibits?

MRS. FURLAN: None.

MS. FRANK: Then Exhibits 1 through 7,

excluding No. 3 which doesn't exist, are admitted into evidence.

At this time also, Mrs. Furlan, I don't believe that you have moved for Complainant's Exhibit 3 which is Mr. Zak's dated document to be admitted into evidence. Do you so wish that that be admitted?

MRS. FURLAN: Yes.

MS. FRANK: Is there any objection?

MR. DEVINE: I'm sorry?

MS. FRANK: That's okay. Mr. Zak's data from his readings being admitted into evidence.

MR. DEVINE: Oh, the report itself?

MS. FRANK: The report and the two-page letter.

MR. DEVINE: No objection, Your Honor. I would like to reopen Mr. Jensen very briefly on one issue that I forgot to ask him about, if that's okay.

MS. FRANK: Complainant's Exhibit 3 is



in evidence, so at this point all exhibits which have been offered are now in evidence and you may resume with Mr. Jensen.

- Q. (By Mr. Devine) Mr. Jensen, where do you live in relationship to the School?
- A. I live a mile away on the other side of the river.
- Q. And how old are you?
- A. 44.
- Q. How long have you lived in that general area?
- A. 44 years.
- Q. You were born near there, you were raised near there and you still live there; is that correct?
- A. Yes.
- Q. I want you to take a look at one of these. Does one of these exhibits depict Spring Creek Road? No. 4? No. 5, I'm sorry. That shows Spring Creek Road; is that correct?
- A. That is correct.
- Q. In relationship to both the School and the

Furlans' residence here on Hampden; is that correct?

A. That's correct.

Q. And this road is High Crest; is that correct?

A. Yes.

MS. FRANK: Spring Creek is at the top left-hand corner?

MR. DEVINE: That's correct.

I would like for you, if you could, to describe the general area including traffic particularly on Spring Creek Road and its impact on what you can hear in the area of the School and in the Furlans' residence on Hampden Court.

MRS. FURLAN: Is this something I can object to?

MS. FRANK: You can object. Why don't you tell me what your reasons are for objecting.

MRS. FURLAN: I don't know what that has to do with what we're discussing here.

MS. FRANK: Mr. Devine?

MR. DEVINE: Well, Your Honor, one of the issues here is the increase, and I think it's a major issue, above the ambient, and I think, you know, we've heard, well, we don't mind crickets, we don't mind gurgling water, those are pleasant noises. That's very subjective.

I don't think anybody's going to say that traffic noise from Spring Creek Road is -- maybe they don't object to that either, but I think at least it's not a very strong position.

MS. FRANK: I'll allow your witness to discuss his impressions of the traffic on the road noting that the Furlans have also discussed their impression and the cases on their impressions of the noise, not your witness', but you may go forward and ask him.

- A. Spring Creek Road is a very heavily trafficked road. Approximately several

years ago when I asked the city for information, we get in the neighborhood on Spring Creek, around 44,000 cars per day on that particular intersection.

Q. Spring Creek?

A. Well, Spring Creek and Parkview and then of course you're dealing with basically Spring Creek and North Second Street in this general area. We're dealing with a traffic flow, but that was several years ago.

MS. FRANK: Where is this information coming from? You said it was a city study?

THE WITNESS: I asked for the information from the City of Rockford Traffic Bureau for which that you can call and ask for information, and we were doing that based upon we wanted to know what the traffic flow was in proximity. We did not call for this particular case.

MS. FRANK: Okay.

A. So there is a substantial amount of traffic that is generated at this location. When I

was on the Furlans' property we can hear the noise and the traffic and the cars and all those other type of things that may be associated with vehicular traffic on their property. And at times what this particularly would do is that this would also change the ambient, and one of the reasons that the ambient may be going up is because of the increase in traffic flow, and as you almost have to perform the test almost near 2 o'clock or 3 o'clock in the morning.

But once you start getting during the hours of operation of being heavily trafficked, probably from 5 to 1 o'clock in the morning, you do hear that particular noise on their property from the Spring Creek.

Q. When you said 5 'til 1, 5 a.m., 5 p.m.?

A. I'm guessing, I'm just saying, but 5 a.m. to 1 p.m. I would think would be the heaviest amount of traffic within this particular

area, and that does have a factor on the ambient noise level that is characteristic on the Furlan property.

Q. How about the p.m. hours? You said 5 a.m. to 1 in the afternoon. That's about a seven-hour or eight-hour period of time. Is there traffic --

A. No, 5 a.m. to 1 p.m. Did I say -- yeah, that's 1 in the afternoon. Did you mean -- excuse me, excuse me, a.m. I'm sorry.

Q. I knew that's what you meant to say.

MS. FRANK: Do we mean 5 a.m. to 1 a.m. or 5 p.m. to 1 a.m.?

THE WITNESS: I'm saying if you start in the morning at 5 a.m. and you run all the way past through the daytime hours into the evening hours, that the traffic will probably subside maybe around 1 a.m. in the morning. So this is a very heavily trafficked area, and in order to get accurate testing on their particular property you will have an increase in

ambient noise on their property because of the traffic that is located and you can hear on Spring Creek Road.

MR. DEVINE: Thank you. That's all I have.

MS. FRANK: Mrs. Furlan, did you have additional questions for this witness?

MRS. FURLAN: No.

MS. FRANK: Okay, thank you. Do you have any further witnesses?

MR. DEVINE: No, and it's my understanding our exhibits have all been admitted, Your Honor, and so we would therefore rest our case.

MS. FRANK: Mrs. Furlan, we've discussed a couple of times that you may call rebuttal witnesses. From what has been said here I believe you want to recall yourself.

MRS. FURLAN: Yes.

MS. FRANK: I guess I would ask the School whether or not they have an objection

again to a sort of narrative fashion or you would wish that her husband ask questions.

MR. DEVINE: I guess I would ask if maybe she intends to call Mr. Zak again that she do so now that maybe he can get going back. She wasn't sure before Mr. Jensen testified.

MRS. FURLAN: I don't think so. Thank you. Thank you, Mr. Zak.

MS. FRANK: Mr. Zak, you're free to leave if you so choose. Mrs. Furlan, I remind you you are still under oath and you may testify to things then that are within your knowledge.

MRS. FURLAN: Now this is my closing?

MS. FRANK: No, this is a continuation of your testimony like you did this morning. We could set it up so that your husband asks you questions and you answer them but we're going to allow you to just do it in a narrative form.

MRS. FURLAN: Okay. The reference



made -- see, I guess I'm on edge now on how to do this because I don't want to interrupt this more than I apparently already have.

Reference made was to furniture on our deck giving the position that if you don't use it, why is it furnished. It's there to provide the feel that so someone -- anyone coming or going knows that someone lives here. It's not -- it does not introduce possible invasion in our home.

There was talk about the neighbor's air conditioner. This is limited. It's soft. What we're talking about is a continuous interference.

Mr. Zak made the statement that when he was in our home it did not bother him. There's a vast difference between spending an hour in a situation with limited conversation as opposed to living somewhere.

Mr. Jensen made reference to you cannot see our home. Sound does not have to

see where it's going. There was mention made of a grove of trees. Now I could --

MS. FRANK: We're looking at I guess Respondent's Exhibit 5, which is the aerial map, shows the grove.

MRS. FURLAN: And you can see that it is -- I would not describe this as a grove. It is some scattered trees. You can see the rubble there where they knocked down trees. Behind this section is all empty.

MS. FRANK: You need to tell us what photograph you're viewing.

MRS. FURLAN: Photo 3.

MS. FRANK: And for the record, this section in the center of the photograph where there are some branches on the ground.

MRS. FURLAN: Yes, considerable. This is vacant up here there are no trees.

MS. FRANK: Up here doesn't work.

MRS. FURLAN: I'm sorry. To the far right, to the center and to the left there are minimal --

MS. FRANK: Vacant of trees.

MRS. FURLAN: Vacant of trees, yeah. I would question that trees are a sound barrier. Now I should have called him for this, huh?

MS. FRANK: Mr. Zak is still here, so if you choose to recall him you haven't lost anything. He's not on his way back to Springfield.

MRS. FURLAN: When I asked earlier about when they came in compliance, does this go now or with the closing?

MS. FRANK: I can't tell until you start to --

MRS. FURLAN: That nothing was done until we called in the EPA.

MS. FRANK: You may testify to that.

MRS. FURLAN: Now?

MS. FRANK: Yes.

MRS. FURLAN: When you initially contacted the School of Medicine, that's back to that letter where they said that

there was no problem, and it wasn't until we acted further on it and had to get the State involved that a reading was taken and they were indeed in compliance. So things were not done --

MS. FRANK: Do you mean in compliance or out of compliance?

MR. DEVINE: No, she meant in compliance. There was no readings ever out of compliance. And Mrs. Furlan, maybe I shouldn't speak for you, I'm sorry, but it's my understanding that that's true.

MRS. FURLAN: It is -- I deeply regret that this thing had to go this far. If the right thing were done --

MS. FRANK: That's for closing.

MRS. FURLAN: That's for closing, okay.

MS. FRANK: What this is really for is your chance to say evidence --

MRS. FURLAN: Then I'll just call Mr. Zak, please.

MS. FRANK: Mr. Zak, I remind you

you're still under oath.

REDIRECT EXAMINATION

BY MRS. FURLAN:

Q. Mr. Zak, would you consider trees to be a sound barrier? In specific, the number of trees and the type of trees that Mr. Devine makes reference to?

A. Well, to be specific to this particular case having observed the area several times, the trees that are present would not be -- would not have a significant effect on sound transmission.

Q. Okay. When you first took a reading at the School, were they in compliance?

A. No. We had --

MR. DEVINE: I'm going to object simply because compliance isn't an issue here so I don't think it's --

MS. FRANK: Your objection is sustained. The issue of numerical compliance is over.

MRS. FURLAN: Okay.

MR. DEVINE: I would ask that his answer be stricken.

MS. FRANK: It is so stricken.

MRS. FURLAN: But that can go in my closing?

MS. FRANK: No. The issue of numerical compliance is no longer an issue. The Board has ruled that currently the School is in numerical compliance.

MRS. FURLAN: Then I'm back to my question from before. Then why did he show everything that was done in order to come into compliance? If compliance isn't the issue --

MS. FRANK: Well, the statute allows for information to come in which goes to whether or not the party has tried to alleviate the noise.

MRS. FURLAN: What they have done is done what the law says they must do.

MS. FRANK: Okay. You can put that into your closing. You're welcome to state

that if you want. But whether or not they were out of numerical compliance in the past is not really relevant because the Board has ruled that they are currently in numerical compliance.

MRS. FURLAN: Yeah, and I agree with that. That's why I didn't know why all this was.

Another question, Mr. Zak, it's been suggested that you cannot see our house. Can you describe how sound travels in relation to vision or however best you want to put it. Is there any correlation between hearing and seeing?

- A. Yes and no. I need to explain that in a little bit of detail. If you have a solid barrier such that -- by solid barrier, I'll give an example of a solid barrier. Let's say we had a brick wall such that we have a noise source on one side and a potential receiver on the other. If the receiver cannot see the noise source but can only see

the brick wall, the brick wall is going to provide approximately a ten decibel reduction in sound, and that's assuming the wall is just a little bit higher -- just high enough to break what we call line of sight. In other words, observer looking at the noise source. That's one example.

Another example would be vegetation. If you've got a hedge or even trees but basically just enough to provide a visual barrier during the growing months, that would in most cases not have a significant effect on the sound levels measured. In order to have a significant effect, tests out in California indicated that the thickness of the tree growth -- by the thickness of the tree growth, I mean the depth needed to penetrate all the trees -- would be exceeding 100 to 200 feet would be needed in order to have a measurable impact on the -- on sound reduction.

MRS. FURLAN: All right, thank you,



Mr. Zak.

MS. FRANK: Is there cross at this time?

MR. DEVINE: No, thank you, Your Honor.

MS. FRANK: Thank you. Mrs. Furlan, then do you have any other witnesses you wish to call?

MRS. FURLAN: No.

MS. FRANK: Mr. Devine, do you have any rebuttal.

MR. DEVINE: No, thank you, Your Honor.

MS. FRANK: Mrs. Furlan, you may begin your closing statement.

MRS. FURLAN: Tell me where this goes. I'm sorry. Mr. Jensen said about the traffic noise. I disagree with his opinion. He gave his opinion. He was entitled to that.

MS. FRANK: You I believe already testified as to what your opinion about the traffic noise was earlier today. You were asked a direct question from Mr. Devine.

MRS. FURLAN: And that covers it.

MS. FRANK: And it was already in.

MR. DEVINE: Your Honor, could I be allowed to confer with Mrs. Furlan for just a minute? I'm not completely sure we need oral arguments since we're submitting posthearing briefs. I want to discuss that with her off the record.

MS. FRANK: That's fine. We can go off the record.

(A discussion was held off the record.)

MS. FRANK: Let's go back on the record. The parties have agreed to waive their oral closing in lieu of the fact that they will be submitting written briefs/closings on or before September 3rd, 1996. Also, I will state for the record that all of the exhibits have been entered into evidence.

As required by the rules I have to make a credibility statement of witnesses.

I found all of the witnesses credible, so the weight of their testimony will be up to the Board, and I don't believe that we have anything further for the hearing unless either side has any more questions or information at this time.

MR. DEVINE: No, Your Honor.

MRS. FURLAN: Nothing.

MS. FRANK: Then I remind you again to place your written closing briefs in the mail by September 3rd to each other, to me and the correct number of copies to the Board.

MRS. FURLAN: Okay.

MS. FRANK: Thank you. The hearing is adjourned.

(The hearing was concluded at 2:58 p.m.)

BEFORE THE ILLINOIS  
POLLUTION CONTROL BOARD

DOROTHY FURLAN and	)	
MICHAEL FURLAN,	)	
	)	
Complainants,	)	PCB NO. 93-15
	)	
v.	)	
	)	
UNIVERSITY OF ILLINOIS	)	
SCHOOL OF MEDICINE,	)	
	)	
Defendant.	)	

I, Carrie L. Vaske, hereby certify that I am a Certified Shorthand Reporter of the State of Illinois; that I am the one who by order and at the direction of the Hearing Officer, Deborah Frank, reported in shorthand the proceedings had or required to be kept in the above-entitled case; and that the above and foregoing is a full, true and complete transcript of my said shorthand notes so taken.

Dated at Ashton, Illinois, this 7th day of August, 1996.

Carrie L. Vaske  
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Certified Shorthand Reporter  
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