

berms as proposed will control that 100-year flood or a larger 100-year flood. Those questions all become relevant then. That construction permit that will ultimately have to be granted is the one which is specific in every detail and which the applicant must conform to or stop building, as I understand the power of the Agency.

Now, I trust we can proceed with Mr. Carr. I note everyone's exception to my ruling. I would appreciate if both Mr. Foster and Mr. Boiteau would remain available at least tomorrow morning during the testimony of Dr. Reinhardt in the event that they are needed.

(Whereupon, the witnesses Boiteau and Foster were excused.)

THE HEARING OFFICER: Mr. Carr, do you have any objection to testifying under oath?

MR. CARR: No, sir.

THE HEARING OFFICER: Will you raise your right hand.

LAWRENCE D. CARR,
called as a witness for and in behalf of the

Applicant, having been first duly sworn, was examined and testified as follows:

THE HEARING OFFICER: Will you give your full name and address to the Reporter.

THE WITNESS: My name is Lawrence, L-A-W-R-E-N-C-E, D. Carr, 28 Larson, Stoughton, Massachusetts.

THE HEARING OFFICER: Mr. Carr, I'm going to show you Exhibit 761119:63, and ask you if that summarizes your qualifications, education and experience.

THE WITNESS: Yes, it does.

THE HEARING OFFICER: Does it fairly and accurately represent them?

THE WITNESS: Yes, it does.

THE HEARING OFFICER: Are there any additions, omissions, corrections or deletions that you wish to make?

THE WITNESS: Not that I've observed.

THE HEARING OFFICER: All right, then now according to the applicant, your testimony today is summarized in application pages Roman IV, Arabic 7, Roman VII- Arabic 8 and limited to the

effects of noise that might be related with any activity?

A. I have a bachelor's degree in geography and a candidate for master's degree in urban affairs.

Q. Well, let's take it one at a time. With respect to the bachelor's degree in geography, were there courses which you took which related to acoustical engineering?

A. No, there were not.

Q. Were there courses which you took which related to acoustical engineering?

A. No, there were not.

Q. Were there any courses that you took that were related to methods for measuring any noise?

A. No.

Q. Any courses that you took with respect to calculating the noise impact of various different construction activities?

A. Not specifically, no.

Q. Were there any courses that you took that related to the analysis of the effects of noise?

A. I have only taken a postgraduate seminar -- postgraduate seminar courses.

Connector, the first item --

Q. Excuse me, the Salisbury Beach Connector, is that a sewer line?

A. No, that is a highway connector.

Q. Oh, highway. Is this -- does this deal with construction and operation?

A. Yes, both.

Q. Both, I see.

A. The top of the last page, the Newburyport Seawall Rehabilitation Study, the Norumbega Park Development and the Wonderland Plaza.

Q. And in each one of those cases you were involved in the obtaining of measurements for ambient noise?

A. Yes, I was.

Q. And would it also be true that in each of those cases you assessed the potential for community response to the proposed action?

A. That's correct.

Q. Now, with respect to the two seminars which you took, could you briefly describe the duration of each?

A. The B & K Seminar was a three-day seminar that involved the use of equipment in the monitoring

I supervised the -- the performance of the noise study and detailed the procedures to be followed by subconsultants to our firm, Mr. James MacDonald, but I feel sufficiently versed in the data included in the application to testify to it.

MR. GITLEN: Now, with respect to the --

MS. NICHOLS: Mr. Hearing Officer, may we have -- may I ask for a point of information? Does the applicant expect to call Mr. MacDonald?

MR. KAFIN: Good heavens, if you want to bring him here. No, we don't expect to.

MS. NICHOLS: Same motion.

THE HEARING OFFICER: Reserve.

BY MR. GITLEN:

Q. Now, with respect to the existing acoustic environment section, Page Roman numeral IV-7 were measurements of the existing noise levels taken?

A. They were.

Q. And on how many occasions were they taken?

A. I believe they were taken on one day for --

THE HEARING OFFICER: Counselor, if I may, before we get to a ruling on Ms. Nichols'

MS. NICHOLS: May the witness please indicate where in the DEIS it is located?

THE WITNESS: It's in the appendix of the DEIS.

MS. NICHOLS: Which appendix, please?

THE WITNESS: I don't know. Let me find it for you. It will be a little faster.

MS. NICHOLS: Point of information, Mr. Hearing Officer. In Mr. Carr's professional experience documents, it indicates that he's responsible for technical investigations of air pollution.

THE HEARING OFFICER: M-m h-m-m.

MS. NICHOLS: In my examination of the project sponsor's direct case, there is no testimony presented on air.

THE HEARING OFFICER: M-m h-m-m.

MR. KAFIN: May I be heard?

THE HEARING OFFICER: Yeah.

MR. KAFIN: On November the 5th, 1976, I wrote a letter to all of the parties to this case, setting forth the factors which were in the rules, indicating those that I thought might be in

has never been raised, never been determined.

THE HEARING OFFICER: Well --

MR. KAFIN: I don't think that's --
if you have the record, we can find a reference
without trying to find that --

THE HEARING OFFICER: I suggest we
all do that before tomorrow morning.

Mr. Carr, in the course of your work
for Sasaki Associates, did you consider the air
pollution aspects, if any, of the project?

THE WITNESS: Yes, I did.

THE HEARING OFFICER: And did you
prepare anything in writing with respect thereto?

THE WITNESS: Yes, I did.

THE HEARING OFFICER: And do you have
a copy of that report?

THE WITNESS: Yes.

THE HEARING OFFICER: May I have it,
please?

THE WITNESS: I believe it's in the
-- in the application.

THE HEARING OFFICER: Would you refer
to the appropriate sections thereof?

THE WITNESS: It's the section following noise, Section Number 7.

THE HEARING OFFICER: Give me the page number, please.

THE WITNESS: It begins on Roman IV-Arabic 9.

THE HEARING OFFICER: And did you prepare it or were you responsible for the preparation thereof?

THE WITNESS: I prepared it.

THE HEARING OFFICER: And if you were to testify on direct examination with reference to the information contained therein, would you testify substantially in accordance therewith?

THE WITNESS: Yes, I would.

THE HEARING OFFICER: O.K. I'm going to ask the Hearing Reporter to append or add Pages Roman IV- Arabic 9 and Roman IV- Arabic 10 as if made by the witness as part of his direct case and I'm going to permit on cross --

THE WITNESS: Excuse me, Roman IV-Arabic 10 is not my areas of expertise.

THE HEARING OFFICER: Pardon me, just

Roman IV- Arabic 9, I'm sorry, and it will be deemed part of the witness' direct testimony subject to cross-examination which might be deemed by the Hearing Examiner relevant, and I will note for the record all parties' exceptions and we will deem it submitted by the Hearing Examiner and to that extent on the issue of air pollution, the witness will be the Hearing Examiner's witness.

All right.

THE HEARING EXAMINER: All right. Now, meanwhile, back to the issue of noise, if any, I'm going to ask the applicant to submit the report referred to by the witness and I would like it deemed marked -- marked an item of evidence. It includes a great deal of material and is approximately 35 or so pages long. It begins with a section titled "Section 5. Acoustics," and has three parts indicated (a) Criteria For Determining Noise Impact; (b) Technical Data; (c) Predicted Sound Levels for Construction. I understand that it was submitted with and as a part of the draft environmental impact statement prepared by the Economic Development Administration of the United States Department of Commerce; is that correct, Mr. Carr?

THE WITNESS: That's correct.

THE HEARING OFFICER: Did you supervise its preparation?

THE WITNESS: Yes, I did.

THE HEARING OFFICER: Are you satisfied as to the accuracy thereof?

THE WITNESS: Yes, I am.

THE HEARING OFFICER: If I were to ask you on direct examination to testify as to the information contained therein, would your testimony be substantially in accordance with the written material?

THE WITNESS: Yes, it would.

THE HEARING OFFICER: All right. I'm going to deem the entire exhibit part of the record at this point and part of the direct testimony of the witness and I have some questions which go to qualifications before I rule on Ms. Nichols' application.

Mr. Carr, in the course of your regular professional activities, have you had your opinions and investigations with reference to noise and the impact of noise tested in any government or legal proceeding?

THE WITNESS: To the extent that environmental impact statements that I've participated in the preparation of have been reviewed by agencies, yes.

THE HEARING OFFICER: Have those reviews resulted in acceptance of your work?

THE WITNESS: Yes, they have.

THE HEARING OFFICER: In which specific cases, referring to your statement of professional qualifications?

THE WITNESS: The Millersport Highway Relocation, Greater Lawrence Area Transportation Improvements.

MS. NICHOLS: Mr. Hearing Officer --

THE HEARING OFFICER: Yeah.

MS. NICHOLS: Point of information.

I thought I understood Mr. Carr to testify in response to Mr. Gitlen's question that --

THE WITNESS: I'm sorry.

MS. NICHOLS: There were no noise dimensions in the Millersport.

THE WITNESS: He asked me in what studies I participated in the monitoring of noise and, in fact, I did not monitor noise in the Millersport Highway Relocation but utilized data that was monitored by the New York State Department of Environmental Conservation in performing an analysis of that noise.

The Salisbury Beach Connector Study,

the Berkley Dighton Connector, Newburyport Seawall, and I would say those are the ones that have been subject to either state or federal review.

THE HEARING OFFICER: Are you familiar with the Federal Aviation Administration, Department of Defense, and in particular the U. S. Air Force and Environmental Protection Agency publications with reference to noise measurement and the evaluation of environmental impact of noise?

THE WITNESS: Yes, I am.

THE HEARING OFFICER: Are you familiar with a system developed by the United States Air Force referred to by the acronym AICUZ standing for Air Force -- Air Installation and Compatible Use Zoning?

THE WITNESS: Not specifically, no.

THE HEARING OFFICER: Have you, in the course of your regular professional activities, had occasion to prepare noise contours with reference to the operation of fixed base air installations?

THE WITNESS: Yes, I have.

THE HEARING OFFICER: Such as airports? Did you do the work with reference to the

Adirondack Airport?

THE WITNESS: No, I did not.

THE HEARING OFFICER: Who did?

THE WITNESS: Mr. MacDonald.

THE HEARING OFFICER: And did you supervise it and are you responsible for it?

THE WITNESS: Yes, I am.

THE HEARING OFFICER: Did you do similar work and a similar study or did you supervise a similar study or is there a similar study with reference to Routes 73 and 86 in the vicinity of Lake Placid?

THE WITNESS: Yes.

THE HEARING OFFICER: Where is that exhibit? You may refer to the document if you wish. The exhibit you referred to is Figure 1C1-1 of the exhibit and it's entitled "Comparative Theoretical 1990 Noise Contours." Mr. Carr, that's not what I'm interested in. I'm interested in an actual 1975 or '76 indication of the ambient noise level attributable to Route 73 and Route 86 in the vicinity of Lake Placid. Is there any such study?

THE WITNESS: Yes, there are

monitoring -- the noise has been monitored adjacent to both roadways.

THE HEARING OFFICER: All right, I'm -- Mr. Carr, I'm going to show you Figure IC1-2 in that exhibit indicating Comparative NEF contours with center on the Adirondack Airport, and I show you that and ask you whether you're familiar with the preparation of those contours?

THE WITNESS: Yes, I am.

THE HEARING OFFICER: Is there a similar study with reference to Route 73 and Route 86 in the vicinity of Lake Placid?

THE WITNESS: That figure that I showed you previously represents a comparative -- these comparatives -- these comparative contours include a 1976 NEFA which the highway study, Route 73 and Route 86, does not include. Graphic for the highway depicts the comparative contours for 1990 only as it was done as part of the environmental impact statement. I -- perhaps I don't understand your correct -- your question correctly.

THE HEARING OFFICER: Perhaps.

We'll try it again.

Mr. Carr, the exhibit entitled
"Comparative NEF Contours for the Adirondack Airport
-- "

THE WITNESS: That's right.

THE HEARING OFFICER: Figure I --
Roman numeral I, capital C-1-2 contains contours
that are obviously influenced by the direction of
the runways and hopefully, assuming this is a
sophisticated analysis, by the type and flight
characteristics of the aircraft taking off and
landing at that airport, is that correct?

THE WITNESS: That's correct.

THE HEARING OFFICER: And as such
they relate to the topography and also to the air
shed and also to the airplane flight characteristics
of those planes commonly using that airport, is that
correct?

THE WITNESS: That's correct.

THE HEARING OFFICER: I'm asking
you, is there a similar study with reference to the
highway in the area of the site of this proposed
project?

THE WITNESS: No, there is not

within the area of the site of the proposed project.

THE HEARING OFFICER: Is there any such comparable study including consideration of the effects of topography and terrain and environment, utilization for highway servicing the Lake Placid community?

THE WITNESS: Not displayed graphically in that nature, no.

THE HEARING OFFICER: Is there a study from which we can construct such a graphic display?

THE WITNESS: Yes, there is.

THE HEARING OFFICER: Where is the study?

THE WITNESS: It's included in that.

THE HEARING OFFICER: Indicate the appropriate data summary.

THE WITNESS: The section entitled "Free Field Noise Levels" is the commencement of it and the attenuation anticipated by the items such as you mentioned, topography, buildings, ground absorption, et cetera, is in the subsequent section.

THE HEARING OFFICER: All right.

THE WITNESS: If I may explain a little bit to you?

THE HEARING OFFICER: Please do.

THE WITNESS: That the intent of that study or that graphic that I've showed you in there was a very -- was parallel lines to the roadway which are to be utilized as a template so that it can be applied to various segments of the roadway in an analysis of what the traffic impacts might be in 1990 as a result of the Olympic program or without the Olympic program, and that attenuation would be dependent upon the particular segments upon which the roadway is laid out.

THE HEARING OFFICER: Mr. Carr, unless you can convince me otherwise, I am going to rule that Figure IC1-1 does not and cannot fairly and accurately represent the attenuation or lack thereof and the comparative noise contours of any segments of Routes 73 or 86 due to the terrain through which Route 73 and 86 traverse, which I intend to take judicial notice is other than flat and level and surrounded by low fields on each side to a distance of 500 feet and the lack of existence

of any 500-foot right-of-way for that road at any point in the immediate vicinity of Lake Placid.

Now, do you have any evidence indicating that we are dealing with a real Route 73 or a real Route 86 in this particular noise study as opposed to a straight line theoretical model?

THE WITNESS: The graphic is titled that those contours represent theoretical noise propagation over a free field situation and the section in the noise study dealing with the attenuation that can be expected due to the dramatic changes in the highway corridors in the North Elba area, such free field propagation might take place in areas adjacent to the horse show grounds, for instance, where there is an open field for a long distance and, as you point out, in other areas where the highway is much more confined to elements of topography, it would be more severely attenuated. Therefore, without doing a many thousand dollar study of both corridors in infinite detail, it is not possible within that report to do it.

THE HEARING OFFICER: Mr. Carr, you used the word "infinite detail". Isn't it a fact

that to do a base line ambient noise study of an existing highway such as Route 73 or Route 86, all that is necessary is the selection of appropriate monitoring sites and that they need not be continuous throughout the entire length of the highway?

THE WITNESS: That's correct.

THE HEARING OFFICER: All right.

Was such a study made as part of this application or as part of the federal environmental impact assessment?

THE WITNESS: To some extent, yes.

THE HEARING OFFICER: Is this exhibit the sole and complete extent of such examination?

THE WITNESS: Yes, it is.

THE HEARING OFFICER: I am going to rule that it may not be received as a matter of -- as an item of evidence because it is patently incomplete and fails to fairly and accurately establish the ambient noise levels of the two major highways involved in the siting and the utilization of the Lake Placid region as part of the 1980 Olympics.

Now, on the question of the competence of the witness, in view of his practical experience

and already demonstrated understanding of the nature of ambient noise level measurement and its representation, as well as participation and studies which have been accepted at least to the extent they were submitted in his obvious supervision of this project, I deem him competent and qualified to testify as an expert herein.

Now, are there any other questions of Mr. Carr?

MS. NICHOLS: May my excpetion be noted specifically now?

THE HEARING OFFICER: Yes.

MS. NICHOLS: Thank you.

MR. GITLEN: May I continue?

THE HEARING OFFICER: Yes.

MR. GITLEN: May I?

THE HEARING OFFICER: Be my guest.

(An exhibit was handed to Mr. Gitlen by the Hearing Officer.)

THE HEARING OFFICER: By the way, I hope you all recall that I have determined that I will take judicial notice of all the information contained in the Draft Environmental Impact Statement

submitted by the economic development administration of the United States Department of Commerce to the extent that such becomes relevant at these hearings.

BY MR. GITLEN:

Q. You testified that ambient acoustical data was obtained in the area surrounding the Intervale site and I asked you how many sound level measurements were taken and over what period of time?

A. I didn't state that it was taken surrounding the site. I indicated that in a noise study, specific sites are selected for various reasons and in this case, noise is monitored on John Brown's gravesite because it's a national historic site and is generally considered to be an area where noise impacts could have a significant effect on the serenity of the site.

Q. And were any other sites chosen?

A. I'm not sure. It's in that report but I do not believe in the vicinity of the Intervale site there were other sites chosen.

MR. GITLEN: Excuse me, has this been marked as an exhibit?

THE HEARING OFFICER: It's going to

be made part of the record, paginated in serial order as it was presented on direct and it can be referred to by its own item number and we'll convert them to page numbers in the edited transcript.

MR. GITLEN: Do you have an item number that I can use?

THE HEARING OFFICER: No, they're just going to have to be marked serially in the transcript as we go along. You can refer to it as the Draft Environmental Impact Statement Noise Report.

BY MR. GITLEN:

Q. All right. I refer you to Figure blank, Site Number 3. Does that indicate the location of a microphone?

A. Yes, it does.

Q. In the vicinity of the Intervale site?

A. That's right.

Q. And at what location specifically?

A. At the access road to the ski jump tower installation just off John Brown Road, approximately 50 feet.

Q. And that was near a residence?

A. Yes, that's correct.

Q. Which is located at the corner of John Brown Road and the --

A. And the access road.

Q. -- and the access road. And now, I refer you to another unmarked figure that is noted "Site Number 5," and ask you if that was a location of a microphone used for obtaining noise data in the vicinity of Intervale?

A. It was. Yes, it was.

Q. And where was that located?

A. That was located approximately 50 feet from Route 73 on the Intervale site opposite the dwelling.

Q. Opposite another house?

A. Yes.

Q. So how many locations -- at how many locations were noise data obtained in the vicinity of the Intervale site?

A. Two.

Q. And they're known as Site Number 3 and Site Number 5?

A. That's correct.

Q. And this data was obtained on one day?

A. I believe so, yes.

Q. Well, were you present?

A. No, I was not.

Q. You were not present?

A. No.

Q. Who was present?

A. Mr. Foster was present.

Q. Pardon?

A. Mr. Foster was present.

Q. Mr. Foster was operating the noise equipment?

A. Yes.

THE HEARING OFFICER: Mr. Gitlen, if I may cut this short: Mr. Carr, is it your testimony that one single measurement with a single microphone in two sites is sufficient to establish the ambient noise level of a particular area subject to seasonal use?

A. Well, ambient noise level is established by statistical value being known as the L_{10} value and you monitor noise for a long period of time or short period of time and still establish that statistical value. In this case, I believe noise was monitored for one hour at both locations. In each -- at each, both times, statistical satisfaction was reached in terms of the determination of the L_{10} level which is

the ambient peak level as con ...

THE HEARING OFFICER: What day of the -- what day of the year were these measurements taken?

THE WITNESS: This was in the spring season in April.

THE HEARING OFFICER: And what was the traffic count in the immediate vicinity?

THE WITNESS: I don't have that information right at hand.

THE HEARING OFFICER: Is traffic a significant element of noise in the vicinity of a roadway?

THE WITNESS: Yes.

THE HEARING OFFICER: Does it vary with the volume and characteristics of the traffic flow?

THE WITNESS: Yes.

THE HEARING OFFICER: In order to accurately ascertain with a reasonable degree of statistical certainty the ambient noise level at a site near a road, don't you have to also monitor the truck traffic and the auto traffic for a

reasonable period of time to be sure that you have a fair and adequate sampling of road traffic?

THE WITNESS: Not necessarily. If you have sufficient traffic data gathered at other times --

THE HEARING OFFICER: Where is the traffic data for those two sites?

THE WITNESS: There is -- well, for the -- there is only traffic data for the Route 73 site obtained from the New York State DOT.

THE HEARING OFFICER: Where is it with reference to the noise report?

THE WITNESS: I'm not certain whether it's -- I don't have the report. Gitlen has my only copy at this point.

THE HEARING OFFICER: Leave the copy with the witness for a couple minutes, please.

By the way, were these meters continuous recording meters?

THE WITNESS: Yes, they were, charts recording meters.

THE HEARING OFFICER: And the charts are attached as part of that exhibit?

THE WITNESS: Yes, they are. There are -- there's a table. Again I'm sorry to say an unnamed table of traffic, peak hour traffic volumes.

THE HEARING OFFICER: Did you measure the ambient noise with your meters at the appropriate sites at the time of peak traffic volumes? Can you tell us, first of all, what hours you monitored at Sites 3 and 5?

THE WITNESS: Yes, I can. Site 3 was monitored on a Friday, 11:20 to 12:20.

THE HEARING OFFICER: What date?

THE WITNESS: April 16th, I believe.

THE HEARING OFFICER: Site 3 is which one?

THE WITNESS: Site 3 is at the John Brown Road access road site.

THE HEARING OFFICER: And what day of the week was that?

THE WITNESS: That was on a Friday.

THE HEARING OFFICER: That's the road to the historic site?

THE WITNESS: That's correct.

THE HEARING OFFICER: Wouldn't you

expect peak traffic to be on a weekend?

THE WITNESS: I would.

THE HEARING OFFICER: All right.

Now, where did you monitor and when did you monitor on Site Number 5?

THE WITNESS: Site Number 5 was monitored on Sunday between 1330 and 1410 hours.

THE HEARING OFFICER: That's between 1:30 and 2:10, right?

THE WITNESS: That's correct.

THE HEARING OFFICER: What's the location of Site Number 5?

THE WITNESS: That's on Route 73, 50 feet off the roadway on the Intervale site.

THE HEARING OFFICER: All right, and is Sunday afternoon at that time the peak hour of traffic?

THE WITNESS: It would be a representative hour. I wouldn't say that it was a peak hour.

MR. KAFIN: Mr. Hearing Officer, I'd like to object to this line of questioning on the grounds of materiality. Let me get it right.

hours, because that is when people tend to be most disturbed by noise. If the higher traffic volume would tend to mask any noise that would intrude upon residences or other people in the case of the John Brown site, someone trying to enjoy the site, for instance, to monitor noise during a very peak hour of traffic while construction was going on, for example, the traffic noise might tend to mask the noise from construction and thereby make it appear much less severe than it actually could potentially be so that the objective here, although in many highway studies noise is often monitored during the peak hour of traffic because of the unique aspects of the Adirondack area where people come to enjoy, to get away from noise in other parts of the State, I think it's quite appropriate to monitor as well as peak times, during certain off-peak hours.

THE HEARING OFFICER: On behalf of the Agency, one of the key points that has to be considered in any discussion of environmental impact involves the disturbance to what has been euphemistically characterized as basically a rural

or wilderness area. To this end, the Agency would expect accurate ambient noise level information for comparison purposes. We now come to the question of the competence of Mr. Carr to discuss the theoretical predictive information contained in that report.

MS. NICHOLS: I would renew my objection, Mr. Hearing Officer.

THE HEARING OFFICER: I was about to entertain your objection again. I'm going to inquire by way of voir dire on the part of Mr. Carr whether he is familiar with the -- whether he utilized one of the standard noise models in order to predict the increase in ambient noise level.

THE WITNESS: What do you mean by the word "model"?

THE HEARING OFFICER: Did you -- how did you predict the ambient noise level?

THE WITNESS: Ambient noise level was predicted by utilization of data prepared by the United State Environmental Protection Agency on the -- on construction noise. Are you asking now on the ambient noise level or --

THE HEARING OFFICER: Ambient construction noise over and above the existing base line, whatever that may be.

MR. KAFIN: Your question goes to the prediction now, not the base line.

THE HEARING OFFICER: Yes, the prediction. The question has been raised as to whether the witness is competent to testify thereto.

THE WITNESS: EPA has produced charts which indicate noise levels by construction phase or various types of construction ranging from residential, nonresidential, commercial and industrial types of construction. These charts were employed to determine the noise levels present on the site during the various phases of construction. A worst-case assumption was made in that all noise sources were assumed to be within a 50-foot radius of one another and the source was assumed to be breaking in the face of the proposed 90-meter ski jump tower.

THE HEARING OFFICER: Are you familiar with the mathematical model on which those charts and nomographs are based?

witness on the grounds of the prediction.

MR. KAFIN: Before you do that, Mr. Hearing Officer, it seems to me that the basis on which you're doing it couldn't be more far afield from the inquiry that we're conducting here. If there is an issue in this case -- and I don't believe there is -- as to whether or not these predictions are accurate or not, and somebody wishes to challenge this witness on that basis, why, maybe we have a problem, but I'm not sure we do. The witness has testified that he used a standard method of predicting the noise.

THE HEARING OFFICER: He didn't utilize a standard method. There is no standard method, Counselor. I'm going to take judicial notice of the fact that the Environmental Protection Agency has a method; the United States Air Force has a method; the Commonwealth of Australia has a method; the British Government has a method; the French Government has a method and there are five or six private methods, all of which are different in their conceptual mathematical model, all of which are more suitable to one location as opposed

similar in character, but lesser in magnitude, as those present during the games. These events will be of such frequency and duration as to constitute an insignificant noise source."

Now, is there any challenge as to those two conclusions?

MR. GITLEN: The course of my cross-examination was not directed toward proposed construction noise but rather the construction generating noise impacts and as to whether the Department would challenge the analysis which the witness has adopted is going to depend upon the answers that the witness gives to certain questions.

THE HEARING OFFICER: All right, I'm going to ask the witness whether he relied exclusively on the Environmental Protection Agency document he referred to before?

THE WITNESS: As I've stated before, I did not directly prepare the report. I supervised its preparation. This document was used. From this document was used the charts on the amount of equipment on site during particular phases of construction and noise levels generated by that

to noise, which I am personally familiar with as a former consultant to the United States Air Force.

At this time, I am going to rule that the conclusions that the witness has made are based upon the nomographs and other data contained in this document and to that extent, I will permit them to stand in this record. The challenge, if any, is not to this witness but to this document. This is his source; he identified it. He relied upon it. I am aware and I assume all knowledgeable counsel are aware that there are other documents, in fact, prepared by USEPA indicating different models and different mathematical systems for estimating noise from construction activity.

Now, if there are any additional questions beyond that and with that understanding, feel free to ask them of this witness.

MR. GITLEN: Is this solely with respect to competence or may I continue with my cross?

THE HEARING OFFICER: You can

continue, but again if you wish to know how this witness operated that formula, I'm not going to allow it.

MR. GITLEN: That's fine.

BY MR. GITLEN:

Q. Now, when the ambient monitoring data was obtained, the graph of the noise was produced, is that not correct?

A. That's correct.

Q. And that, the graphs for the ambient data that was obtained at Sites Number 3 and 5 are contained in this document, this report, which is an appendix to the DEIS, is that correct?

A. That's correct.

Q. Now, would you please turn to the graph for Site Number 3. Under the heading "Metered Data," capital C, range is written in 50 little d, capital

B. Could you explain what that means?

A. The noise meter that we utilized is a Columbia SPL110B Meter, has a variable range setting. That variable range is chosen by the field monitoring acoustician or whatever the monitoring engineer, based upon observation of the noise in

the area for perhaps 15 minutes to a half-hour before commencing the monitoring and that selects that range such that the noise peaks will be bracketed by the chart. In other words, the effort is, in attempting to set your L_{10} level to capture all the peaks of noise on the chart levels so that the range is selected such that those peaks are captured on the chart.

Q. And were, in fact, all the peaks captured on the chart?

A. Yes, they were.

Q. Now, I guess I would ask if we're going to have to, for the sake of the record, define some terms. An L_{10} level is a noise level which is exceeded 10 percent of the time?

A. That's correct.

Q. And an L_{50} level is the noise level which is exceeded 50 percent of the time?

A. That's correct.

Q. And similarly with an L_{90} level?

A. That's correct.

Q. And an LNP level?

A. That's referred to as the level of noise

the construction of this ski jump, is that not correct?

A. That's correct.

Q. And could you tell me what equipment -- what items of equipment and the numbers of pieces of equipment you assumed to be used?

THE HEARING OFFICER: Counselor, again, I'm going to reiterate the the statement that the witness is referring to a document prepared by or on behalf of the Environmental Protection Agency which, to the extent --

MR. GITLEN: I'm fully aware of that, Mr. Hearing Officer, if you would allow me.

THE HEARING OFFICER: He is about to read the table therefrom therein into the record.

MR. GITLEN: All right, let me ask the witness this:

Q. Did you make any independent assessment of the types of construction equipment that are expected to be used in connection with construction of the Intervale ski jump?

A. Yes, I did.

Q. And could you state what items of equipment you've

THE HEARING OFFICER: And while you're at it, also take a look and see whether you assumed that jackhammers and rock drills would be used.

THE WITNESS: I think the assumption was that there would not be a pile driver but certainly there would be jackhammers or rock drills used.

THE HEARING OFFICER: All right, and a jackhammer and rock drill represents essentially the loudest single piece of equipment as determined by Bolt, Beranek & Newman in 1971 for the EPA, does it not?

THE WITNESS: That's correct.

THE HEARING OFFICER: And the maximum noise level measured in decibels on the A scale at 40 feet is approximately 96 to 98dB according to their --

THE WITNESS: Excuse me, that would be the -- that's the residential construction I believe. The next chart would be the -- I'm sorry.

THE WITNESS: One of the other

charts, as I recall it. It's this, this table.
(Indicating)

THE HEARING OFFICER: All right, referring to Table A2B, "Usage Factors of Equipment in Nonresidential Construction," referring to pile drivers, 101 dB on the A scale and that would necessarily be the loudest, is that correct, based on your estimate?

THE WITNESS: Yes.

THE HEARING OFFICER: And you assumed they would not be used but that jackhammers with a range of 88 dB would use -- would be used?

THE WITNESS: Yes.

THE HEARING OFFICER: And rock drills at 98 dB would also be used?

THE WITNESS: Yes.

THE HEARING OFFICER: And you also are assuming that -- no, no further. All right, go ahead, Mr. Gitlen.

BY MR. GITLEN:

Q. Did you assume that any concrete pumps would be used?

A. Yes.

Q. Did you assume that the concrete pumps would be used on a 24-hour-a-day basis?

A. No.

Q. You --

A. I did not assume that any of the equipment would be utilized on a 24-hour-a-day basis.

Q. In other words, your assumption that there would be daytime construction only?

A. Yes.

Q. And during any specific hours?

A. Those hours that are normal work hours, I would assume. I think the assumption was based that they would commence no earlier than 7:00 a.m. or 7:30 and terminate at -- on or before 6:00 p.m.

Q. Do you have any information, any specific information on how much you based your assumption that the concrete pumps would not be used on a 24-hour-per-day basis?

A. No, other than some discussions with Mr. Lopez.

Q. And what was that; what was the sense of those discussions?

A. I had asked him if he anticipated 24-hour construction on this site and he indicated not. I

would assume --

Q. Are you familiar --

A. I would assume that the decision --

Q. Are you familiar with --

A. -- that the decision on -- excuse me. As to whether concrete pumps would have to be used on a 24-hour-a-day basis or not would be initially based on the design of the facility and the use of the concrete pump.

Q. Are you familiar with the normal construction practice in the event that the facility were to be constructed of reinforced concrete and that pumps were determined to be necessary in order to convey the concrete from the ground level to the facility as to what actual construction practice is?

A. I'm not an expert in the construction practices and, no, I'm not.

THE HEARING OFFICER: Counselor, those questions at this time are essentially immaterial. Mr. Lopez testified there would not be 24-hour operation. Assuming there is 24-hour operation for a limited period of time, these items of equipment which are substantially noisy

will obviously be utilized for the maximum period of time they have to be utilized. The construction phase was indicated by Mr. Lopez as following the chart which was submitted as Exhibits 85 and 86 at the last hearing and you can ascertain from them how long, and I'll take judicial notice at a later period of time during the design phase whether or not there is going to be continuous utilization of these noisy pieces of equipment.

Q. Did you prepare any document which indicated the -- your worst-case assumption for the numbers of different pieces of equipment that would be operating at the same time?

A. The worst-case assumption was based upon Table VIII-2b in the report previously referenced by the EPA. I should note that the --

Q. All right. Now, with respect to that table, just so that I'm clear on it, on the first line it says "air compressor," and then in brackets it says number 81 and that number 81 is the dB level on a scale of that item at 50 feet?

A. Yes, in 1971 values. That would -- consistent with the worst-case analysis, the table was not --

deliberately not updated to current standards which are applied to many of these pieces of construction equipment to reduce their noise level.

Q. And the numbers which can be found under the columns "clearing," "excavation," "foundation," "erection" and "finishing," could you explain what those mean?

A. Well, the first number represents the percentage of use on site during the particular phase of construction and the number in parenthesis represents the number of pieces of equipment utilized during that particular phase. An example under the air compressor, excavation would be one, air compressor -- excuse me, two air compressors used 1 percent of the time.

THE HEARING OFFICER: Counselor, excuse me a moment. Mr. Carr, are you familiar with the construction timetable and the critical path analysis prepared by the construction manager and discussed at the last hearing?

THE WITNESS: Not that interrelation of that schedule discussed at the last hearing, no.

THE HEARING OFFICER: All right.

Then in other words, you never estimated the maximum possible utilization of construction equipment based on actual construction timetables for this project as set forth in that CPM and Logic Diagram and its associated computer analysis, did you?

THE WITNESS: No, sir, that was not available.

THE HEARING OFFICER: In other words, all the answers you're giving Mr. Gitlen are basically theoretical and make certain assumptions and are perhaps even speculative if they are different than the actual factors set forth by the construction manager, right?

THE WITNESS: That's correct.

THE HEARING OFFICER: All right. I'm not going to permit any further questioning of a witness along those lines on the grounds that there is no evidence in the record before us as to actual noise to be expected from the actual construction as set forth in that construction schedule and timetable submitted at the last hearing.

MS. NICHOLS: Mr. Hearing Officer, I would move to strike the witness' answers to the extent that they have dealt in those speculations.

THE HEARING OFFICER: I didn't ask the questions. They're going to stand. They're Mr. Gitlen's.

BY MR. GITLEN:

Q. Now, with respect to the items of equipment, the same would be true, in other words you have absolutely no knowledge as to whether or not, in fact, at this project the items of equipment which you have assumed would be present would, in fact, be present.

A. I wouldn't say I have absolutely no knowledge, no. I can say unequivocally there will be trucks present on the site.

Q. You have absolutely no idea though as to whether or not concrete pumps, in fact, would be used, do you?

A. No, that's pending design of the facility.

Q. And you have little idea as to the types of trucks that are going to be utilized in the construction of the tower and the resulting pieces of equipment that might be necessary, whether derricks or cranes are

necessary, for example?

A. That's correct, but --

Q. And you wouldn't know whether pile --

MR. KAFIN: Wait a minute, let the witness answer.

MR. GITLEN: These are no --

MR. KAFIN: Let him answer.

MR. GITLEN: These are yes or no questions.

THE HEARING OFFICER: Counselor, they may be yes-no questions if we had a jury. We don't have a jury. I'm not going to tolerate that kind of attack on a witness. Let the witness answer the question.

MR. GITLEN: There's no attack, Mr. Hearing Officer. You have -- you have taken up virtually all of the time that I have had thus far, not allowing me to follow a line of questions that I think is very, very relevant.

THE HEARING OFFICER: Well, Counselor --

MR. GITLEN: You're allowing --
excuse me.

THE HEARING OFFICER: You have --

MR. GITLEN: Excuse me for one minute. You're allowing testimony to stand that admittedly is not at all relevant to the facts which are at hand. The base line data doesn't appear to be accurate.

THE HEARING OFFICER: So I've ruled.

MR. GITLEN: The projections as to noise level don't appear by your own admission, don't appear to be relevant.

THE HEARING OFFICER: So I've ruled.

MR. GITLEN: And yet when counsel asks that the testimony be stricken you have somehow and by some rule of law that must be a machination of your own, said that because of my cross-examination of the witness I have adopted his answers as my own.

THE HEARING OFFICER: That wasn't what I said. I just said that the testimony shall stand. You're perfectly at liberty to continue your line of questioning. However, we're dealing with a professional witness in a nonjury proceeding in an administrative -- administrative proceeding where the rules of evidence are somewhat relaxed. I

Q. Did you, on the basis of the information that you have compiled, determined the protected sound levels at those locations during construction?

THE HEARING OFFICER: Objection.

The witness has not presented sufficient information to enable him to answer that question.

Q. Are you familiar with the Bassett Mountain site?

A. Yes, I am.

Q. Have you seen maps of it?

A. Yes, I have.

Q. Have you visited the site?

A. Yes, I have.

Q. Are there any significant receptors within a comparable distance of the John Brown's Farm and the two residences with respect to the Intervale site at that location?

A. Yes, there are.

Q. And what are they?

A. You have residences in the area, some businesses too.

Q. At the same distances, similar distances as at the Intervale site?

A. Distances similar to -- similar distances

slept on his right, he slept on his rights. They were here at the very first pre-hearing conference. I have no redirect.

THE HEARING OFFICER: Your comment is noted. Mr. Carr, I have a couple of questions.

How long have you been associated with Sasaki in the preparation of both the federal draft environmental impact statement and this project application?

THE WITNESS: Since the inception.

THE HEARING OFFICER: All right, and that began when as far as you were concerned?

THE WITNESS: As far as I was concerned, it began in February of 1976.

THE HEARING OFFICER: And how long have you been familiar with Mr. Lopez and his position as construction manager?

THE WITNESS: I met Mr. Lopez sometime soon thereafter.

THE HEARING OFFICER: February or March 1976?

THE WITNESS: February or March, that's correct.

THE WITNESS: I discussed with Mr. Lopez the types of equipment that might be utilized and the noise levels that they have, that they were operating under in terms of federal standards for the protection of construction workers on the site.

THE HEARING OFFICER: Did you at any time determine the amount of time that might be involved in the utilization of each piece of equipment based on the project construction timetable?

THE WITNESS: No.

THE HEARING OFFICER: I have no further questions.

(Whereupon, the witness was excused.)

THE HEARING OFFICER: All right, let us convene tomorrow morning at 9:00 a.m. with Dr. Reinhardt and adjourn for the evening.

(Whereupon, at 6:15 p.m. the hearing was adjourned to reconvene on Tuesday, December 7th, 1976 at 9:00 a.m.)