BEFORE THE

CALIFORNIA ENERGY RESOURCES CONSERVATION

AND DEVELOPMENT COMMISSION

In the Matter of:	)	
	)	
Application for	)	
Certification for	)	Docket No.
Mariposa Energy	)	09-AFC-3
Project	)	
_____	)	

BYRON-BETHANY IRRIGATION DISTRICT

7995 BRUNS ROAD

BYRON, CALIFORNIA

FRIDAY, FEBRUARY 25, 2011

10:15 A.M.

Reported by
Peter Petty

Transcribed by:
Diana Sasseen

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INDEX

	Page
Opening remarks by Hearing Officer Celli	8
TRAFFIC AND TRANSPORTATION AVIATION	
APPLICANT'S PANEL (Douglas Moss, Barbara Lichman, Barry Yurtis, Ryan Olson, Henry Shiu, Ronald Hess, Wesley David Wardall, Andrew Solberg, Case Van Dam)	
Direct Examination by Mr. Wheatland	13
Cross-Examination by Mr. Wilson	19
Cross-Examination by Mr. Sarvey	90
Cross-Examination by Mr. Groover	96
Cross-Examination by Mr. Dighe	103
Cross-Examination by Mr. Singh	117
Cross-Examination by Mr. Simpson	145
Redirect Examination by Mr. Wheatland	154
Recross-Examination by Mr. Sarvey	164
Recross-Examination by Mr. Lamb	166
Recross-Examination by Mr. Dighe	171
Recross-Examination by Mr. Singh	174
Recross-Examination by Mr. Simpson	182
Redirect Examination by Mr. Wheatland	184
Recross-Examination by Mr. Singh	185
Recross-Examination by Mr. Carlton	186
Recross-Examination by Mr. Simpson	186
STAFF'S PANEL (Andrea Koch, Shaelyn Strattan)	
Direct Examination by Ms. Willis	188
Cross-Examination by Mr. Wilson	191
Cross-Examination by Mr. Sarvey	197
Cross-Examination by Mr. Lamb	204
Cross-Examination by Mr. Dighe	206
Cross-Examination by Mr. Singh	210
Cross-Examination by Mr. Simpson	220

INDEX (Continued)

Page

HAZARDOUS MATERIALS

APPLICANT'S PANEL
(Cesar de Leon)

Direct Examination by Mr. Harris 243
Cross-Examination by Mr. Sarvey 247
Cross-Examination by Mr. Dighe 258
Cross-Examination by Mr. Singh 260
Cross-Examination by Mr. Carlton 272
Cross-Examination by Mr. Simpson 273
Redirect Examination by Mr. Harris 280
Recross-Examination by Mr. Lamb 283
Recross-Examination by Mr. Singh 284
Recross-Examination by Mr. Simpson 287

SOCIOECONOMICS

APPLICANT'S PANEL
(Fatuma Yusuf, Thomas Priestly)

Cross-Examination by Mr. Sarvey 296

Adjournment 352

Reporter's Certificate 353

EXHIBITS

	MARKED	REC'D
INTERVENOR SARVEY		
406	--	13
CAL PILOTS		
700	--	45
701	--	45
702	--	45
703	--	45
704	--	45
705	89	--
APPLICANT'S		
1	--	234
4	--	234
5	--	234
6	--	234
7	--	234
11	--	234
15	--	234
16	--	234
35	--	234
38	--	234
61	--	234
68	--	292
70	160	--

PROCEEDINGS

HEARING OFFICER CELLI: This is Day 2 of the Mariposa Energy Project evidentiary hearings.

I'm Kenneth Celli, C-e-l-l-i. I'm the hearing advisor.

Here with me is Commissioner Karen Douglas. To my left is Galen Lamei, Commissioner Douglas's advisor. On Commissioner Douglas's right is Eileen Allen, who is Chairman Weisenmiller's advisor who is on loan to Commissioner Douglas. And to her right is Paul Feist, Paul Feast, who is the advisor to Commissioner Douglas. So she's well advised.

We start today with traffic and transportation. I'm happy to see that we have the applicant's witnesses who are here.

Anything before we begin from the applicant, or can I swear the witnesses?

Okay. Mr. Petty, please.

(Whereupon all witnesses were sworn in by the reporter.)

MR. MOSS: I'm Douglas Moss, M-o-s-s.

MS. LICHMAN: Barbara Lichman, L-i-c-h-m-a-n.

MR. YURTIS: Barry Yurtis, Y-u-r-t-i-s.

MR. OLSON: Ryan Olson, O-l-s-o-n.

MR. SHIU: Henry Shiu, S-h-i-u.

MR. HESS: Ronald Hess, H-e-s-s.

MR. WARDALL: Wesley David Wardall, W-a-r-d-a-l-l.

MR. SOLBERG: Andrew Solberg, S-o-l-b-e-r-g.

MR. WHEATLAND: May I proceed?

HEARING OFFICER CELLI: Please proceed.

One moment.

Mr. Sarvey.

MR. SARVEY: We've got a couple of things we could take off the table, and maybe we can send some witnesses home right now before we start here, if that would be appropriate.

HEARING OFFICER CELLI: Is it related to aviation?

MR. SARVEY: No. We have worker safety and fire protection that we have an agreement on, and we have a stipulation for Mr. Power's testimony, and we have one other stipulation.

Mr. Wheatland?

MR. WHEATLAND: Yes.

MR. SARVEY: Did you want to take those stipulations now and put them in the record?

MR. WHEATLAND: Sure. That would be fine.

MR. SARVEY: That way we could let the witnesses go.

HEARING OFFICER CELLI: So, I wonder, Mr. Wheatland, do you have a written stipulation, or the language so you can put it in the record?

MR. WHEATLAND: No, these aren't written at this point. But let's talk first about Mr. Powers.

We had offered previously to accept his testimony by declaration without the need for the witness to appear, and I believe that Mr. Sarvey would now agree to that.

MR. SARVEY: With the stipulation that, you know, we're not going to hear any rebuttal testimony to Mr. Powers's testimony, but since nobody's filed any rebuttal to his testimony, so I would like to stipulate and have Mr. Powers's -- staff doesn't have any questions, applicant doesn't have any questions, the intervenors will probably not be allowed to ask any questions. Unless the committee has some questions for Mr. Powers, I think it would be appropriate to stipulate to his testimony.

HEARING OFFICER CELLI: Thank you. Now, I'm sorry, I hate to come off like I'm addled, but I don't remember if there was rebuttal testimony in the record to what Mr. Powers testified to. Is there?

MR. WHEATLAND: We had not filed rebuttal testimony to Mr. Powers. And we do not intend to file any additional written rebuttal nor do we intend any additional direct examination. We will make our witnesses

available for cross-examination on that subject.

HEARING OFFICER CELLI: Okay. But -- and, staff, you did not file any rebuttal?

MS. WILLIS: No, we didn't.

HEARING OFFICER CELLI: Okay. So the record is essentially frozen as it is on worker safety and fire.

MR. SARVEY: Well, this would be limited to Mr. Powers's testimony. The worker safety and fire protection is a different issue. Mr. Powers is my alternatives witness.

HEARING OFFICER CELLI: Alternatives. I'm sorry. Good morning.

MR. SARVEY: That's okay.

HEARING OFFICER CELLI: So that stipulation is that the Committee will receive Mr. Powers's testimony into the record, and the -- are there any exhibits? What exhibit number is that?

MR. SARVEY: Let me look that up real quick. Maybe they can talk about the worker safety and fire protections. They've come to an agreement with Tracy Fire?

MR. WHEATLAND: Right. And I'd -- I would like to a little bit, not at this moment, but a little bit later this afternoon I'd like Mr. Curry to report to you on the agreement we've reached with the Tracy Fire

Department. But we've accepted their offer in terms of what they're requesting to resolve this issue from their perspective. We had an exchange of e-mail communications where they presented a proposal to us and we accepted it by e-mail this morning. And so later today we'd like to briefly summarize that for you.

We've agreed with Mr. Sarvey that we will prepare a proposed condition that will memorialize that agreement with Tracy Fire, and we will share it with Mr. Sarvey before we present it to the Committee.

HEARING OFFICER CELLI: Thank you. So I'm not -- I'm only dealing then right now with alternatives. The stipulation would be to --

MR. SARVEY: Exhibit 405, Mr. Celli.

HEARING OFFICER CELLI: -- the motion to receive Exhibit 405 into evidence.

Any objection from staff?

MR. SARVEY: Wait a minute, excuse me, 406. I'm sorry. It's 406, Mr. Celli.

HEARING OFFICER CELLI: Exhibit 406 only.

Any objection from staff?

MS. WILLIS: No objection.

HEARING OFFICER CELLI: No objection from applicant?

MR. WHEATLAND: No.

HEARING OFFICER CELLI: Exhibit 406 is received.

(Whereupon, Exhibit 406 was received into evidence.)

HEARING OFFICER CELLI: And now we will go back on the record with regard to traffic and transportation.

Mr. Wheatland, your witnesses.

MR. WHEATLAND: Thank you.

DIRECT EXAMINATION

MR. WHEATLAND: Commissioner Douglas and Hearing Officer Celli, the applicant is presenting a panel this morning to address both our traffic and transportation testimony in general, and aviation specifically. The applicant has taken this issue very seriously and has made an extraordinary effort to provide a full record on the question of aviation issues. In fact, I believe this is the largest panel on a single topic that I've ever experienced in my years with the Commission. But we did so because we wanted to be sure that there was a complete record and that any questions that the parties may have or the Committee would have could be fully answered.

And with your permission, I would like to ask each of the witnesses to just briefly describe who they are and, just very briefly, the subject area that they will be --

HEARING OFFICER CELLI: Okay. Let me just say

one thing. This morning when I was reading the e-mails that I should have been reading yesterday from everyone, they were saying that they could hear everybody but you, Mr. Wheatland.

MR. WHEATLAND: All right.

HEARING OFFICER CELLI: And I just got notified that -- so I need you to be today very conscious of speaking right into your microphone.

And please proceed.

MR. WHEATLAND: All right.

MR. MOSS: Good morning. My name is Douglas Moss. I'm an engineering test pilot. And I'm here today to testify on the aircraft characteristics and responses when flying through a conductive thermal plume from a power plant.

MS. LICHMAN: Good morning. My name is Barbara Lichman, and I'm an attorney with the Law Firm of Sedgwick, Detert, Moran & Arnold. And I'm here to testify with respect to aviation and airport land use planning issues.

MR. YURTIS: Good morning. My name is Barry Yurtis. I'm vice president of domestic operations with Williams Aviation Consultants. Before that I was 25 years with the Federal Aviation Administration. My last position with them was safety manager for the western

United States, Alaska, and the Hawaiian Islands, actually, the entire Pacific. And I'm here to testify on the obstruction evaluation parameters, air space, and flight patterns.

MR. SHIU: Henry Shiu, Department of Engineering, University of California Davis. My analysis team conducted the flight dynamics modeling of aircraft flying over the MEP plumes.

MR. OLSON: Hello. My name is Ryan Olson. I'm a commercial pilot and flight test engineer from the National Test Pilot school here to discuss the effects of thermal plume on aircraft.

MR. HESS: my name is Ron Hess. I'm a faculty member of the Department of the Mechanical --

(Interruption in the proceedings.)

MR. HESS: my name is Ron Hess. I'm a faculty member in the Department of Mechanical and Aerospace Engineering at the University of California Davis where I've been for the past 28 years. I'm here to testify on some of the theoretical aspects of aircraft plume encounters.

MR. WARDALL: My name is Wesley David Wardall. I'm an FAA-designated engineering representative. I'm here to attest -- discuss the impacts of the structural safety on the aircraft through a plume. I'm also an

airline transport pilot and will discuss, if necessary, the impacts of aircraft flying through a plume.

MR. SOLBERG: My name is Andy Solberg. I'm a professional mechanical engineer. I specialize in computational dynamics and the characterization of thermal plumes.

HEARING OFFICER CELLI: That mic was not as good as the other mics.

Were you able to get that, Mr. Petty?

Okay. Great. Go ahead.

MR. WHEATLAND: The panel is available for cross-examination.

Oh, sorry, oh, yes.

(Speaker beyond range of microphone.)

MR. WHEATLAND: Case Van Dam.

And also, where is he?

HEARING OFFICER CELLI: It's not coming across. Could you use another microphone then?

Not working?

Boy. Where's a mechanical engineer when you need one?

MR. SHIU: How's that?

HEARING OFFICER CELLI: Is that good, Mr. Petty?

MR. SHIU: Case Van Dam, faculty member at the University of California Davis.

He's not here physically with us, but he's part of my analysis team, and he's connected via WebEx right now. He's available also to answer questions regarding flight dynamics modeling.

First name C-a-s-e, last name V-a-n, space, D-a-m.

MR. WHEATLAND: And before we go, I do have one other minor matter.

Mr. Moss, you have one correction or addition to the testimony; is that right?

MR. MOSS: I'm sorry?

MR. WHEATLAND: Do we have any additions or corrections to the testimony?

MR. MOSS: No, we do not.

MR. WHEATLAND: Okay. Very good.

HEARING OFFICER CELLI: Staff, any cross?

MS. WILLIS: We have no cross-examination.

HEARING OFFICER CELLI: Thank you.

Mr. Sarvey, please.

MR. SARVEY: We previously arranged it, if it's okay with the Committee to have Cal Pilots begin because this is their issue.

HEARING OFFICER CELLI: Okay. But did you want me to come back around to you?

MR. SARVEY: However you want to do it. You want

to start with Cal Pilots and go that way and come back around so it's easy to remember, that's fine; but Cal Pilots, this is their issue, so we should let them lead.

HEARING OFFICER CELLI: You're messing with my system, but I'll see what we can do.

MR. SARVEY: Sorry, Mr. Celli.

HEARING OFFICER CELLI: Cal Pilots, Mr. Wilson, please.

MR. WILSON: How do you want to handle this? They haven't said anything, so I'm reading out of their exhibits?

HEARING OFFICER CELLI: In other words, it's as if the testimony that we've received already in aviation was just spoken into the record, and now you're cross-examining them on that.

MR. WILSON: I understand.

First, I notice that there's a laptop and a handle, a game handle on the table. And I notice that there's a possibility of a simulation of an aircraft flying through a plume. So I would ask the applicant if they intend to demonstrate that.

MR. WHEATLAND: I'm going to answer that question.

If you ask questions regarding that area and

decide that that's an appropriate area of cross-examination for you, we are prepared to answer your questions regarding plume simulations, but it's only if you ask those questions.

HEARING OFFICER CELLI: And for the record, the only thing -- I had no idea this was plume simulations, all I knew was there's a joy stick and a computer over there. I don't know what it purports to show. We've not seen it, it's not an exhibit in the record. And I understand that on cross, as needed, you may use it to rebut if something comes up. So I understand that it's sort of contingent on certain questions. But the record -- if you wouldn't mind, just for the record, saying what it addresses.

MR. WHEATLAND: For the record, it addresses flight test report and simulations of aircrafts flying over actual thermal plumes.

HEARING OFFICER CELLI: Thank you.

So go ahead, Mr. Wilson.

CROSS-EXAMINATION

MR. WILSON: So my first question is on the same issue; this is a mathematical model simulating flying through a plume.

HEARING OFFICER CELLI: Let's do it this way, folks. You all know your fields of expertise. When they

ask the question, the appropriate person should answer the question if you would.

MR. WHEATLAND: Mr. Celli, Mr. Moss will take the lead in the panel in helping you to make sure that we have the appropriate person to answer the question.

HEARING OFFICER CELLI: Thank you.

And again, I'm going to remind you to use your mic.

MR. MOSS: Mr. Wilson, what was the specific question?

MR. WILSON: The simulation is based on mathematical modeling.

MR. WHEATLAND: Which -- excuse me. Which simulation, Andy?

MR. WILSON: Well, first of all, the hearing officer should understand that if, in fact, it is the same model and demonstration, I, myself, as well as other members of Cal Pilots saw this demonstration before at the Contra Costa County Airport Land Use Commission. So there's a certain depth of knowledge that I have on what could possibly be shown. So since we're talking about the subject, I'd like to ask a couple of questions up front.

HEARING OFFICER CELLI: That's fine. Let's do this: Because it's not in evidence, it hasn't been shown yet, ask the questions you were going to ask, and then if

it comes up -- because maybe we can get through this whole cross-examination without even having to see whatever this simulation is, and then we -- and then if it comes up, we should deal with the simulation. Because I think, if I understand you correctly, are you questioning the foundational bases of this simulation?

MR. WILSON: That's correct, yes.

HEARING OFFICER CELLI: Okay. Well, since we haven't seen it yet, it's premature. So let's --

MR. WILSON: And I understand in this Committee what you just said.

HEARING OFFICER CELLI: Okay, great.

MR. WILSON: There's a couple of models out that have been used in the past, and also in the documents here, reference to the Kate Stone model on thermal plume analysis. However, Kate Stone is from Australia, however, it has been used as evidence in previous power plant hearings.

One of the questions related to that is on plumes -- on calculating a value of the plume, how fast is it, how high does it goes based on the size of the power plant.

Cal Pilots has entered into evidence a NOTAM, and we have a recommendation in Trans 7 and 8. What criteria to site this power plant, to license the power plant, that

a NOTAM would be put on aeronautical charts not to fly over the plume.

So what is the intent of the presentation in the modeling? Is this to make a determination of how high the plume is, how fast the plume is, or -- because this has already been recommended by the FAA that no one fly over a thermal plume. This is in our evidence, and it's all cited in the AIM, Aeronautical Information Manual --

HEARING OFFICER CELLI: Let me just interrupt and say --

MR. WILSON: Wait, wait. I'll get to the question.

HEARING OFFICER CELLI: Good.

MR. WILSON: -- 7-5-15. So 7-5-15 in the AIM, the Aeronautical Information Manual, item A states "Flight hazards exist around thermal plumes."

What has been done thus far is we have -- staff has entered Trans 7 and Trans 8, do not fly over the plume. So the question is, are we hearing testimony to say the plume is not valid? Are we hearing testimony that says the FAA is wrong and you can fly over the plume? What is the purpose of your analysis and presentation of the plume?

MR. MOSS: I'll let our legal consultants answer this.

MR. WHEATLAND: I think the question though is what's the intent of the modeling, what are we trying to demonstrate by use of the modeling.

Is that the question you're asking?

MR. WILSON: That's one.

MR. WHEATLAND: So the question I think is for what purpose did we conduct the modeling.

HEARING OFFICER CELLI: And is AIM an acronym for something?

MR. WHEATLAND: Andy, you want to explain the AIM?

MR. WILSON: The AIM is an FAA document, and it's referenced as AIM, which stands for Aeronautical Information Manual.

HEARING OFFICER CELLI: Thank you.

MR. WHEATLAND: But I think the question, if I understand the question to the panel, is what was the purpose of our modeling.

MR. WILSON: And understand I'm trying to -- maybe we can get through this pretty quick.

MR. SHIU: The purpose of the model is to demonstrate the effects of the plume on an aircraft flying through the plume. So the simulation is a cockpit simulation. It shows what a person sitting in an airplane would see, experience if they were to fly an airplane

through the MEP plume.

MR. MOSS: Furthermore, the Aeronautical Information Manual is a not a statutory requirement for guidance, it is just an information manual. And yes, we're not disclaiming the validity of the plume, the plumes do exist from power plants, but the applicability of the Airman's Information Manual doesn't extend to the point of actually restricting operations.

Does that answer your question?

MR. WILSON: I'm getting there. Hold on.

HEARING OFFICER CELLI: If not, keep asking questions.

MR. WILSON: No, no. I'm trying to -- thank you, Mr. Chairman.

So is -- I'll ask this question first. So again, so my next question is, the second part of the question is is it the intent of this testimony to remove or change Trans 7 and Trans 8?

MR. MOSS: No, that's not the intent of this testimony.

MR. WILSON: Then if we leave the NOTAM that a -- in all documentation on the aeronautical charts in the area of Byron that the NOTAM must go in, in other words, it's a requirement that the applicant would go to the FAA and request that notice, a marking on the chart that says

do not fly over the power plant plume. And by the way, we're talking about two -- we have been talking and referencing to two power plants in the same vicinity. One is the East Altamont power plant, which we are not talking about at this time, but it also has thermal plumes, in fact, much larger, faster in velocity than Mariposa power plant or project; so we're talking about specifically right now MEP.

MR. WHEATLAND: So could we break that down into two parts, please?

I think what I heard you asking is, first of all, would the NOTAM restrict pilots from flying over the Mariposa project. And maybe you could explain what a NOTAM is, please.

MR. MOSS: A NOTAM is a Notices to Airmen. And our understanding for Trans 7 and 8 is the applicant must provide guidance and information to the pilot community. It is -- does not specify -- does that specify that overflight of the power plant is prohibited, and the NOTAM does not go in the chart, but, you know, an annotation on the chart, and the NOTAM must actually go into the airfield directory.

MR. SINGH: Mr. Chairman, I just want to make small request.

Are these people under the penalty of perjury

right now, the witnesses, all the witnesses?

HEARING OFFICER CELLI: Yes.

MR. SINGH: Okay. So what is the -- can these people pass notes to the witnesses on the other side of the desk?

HEARING OFFICER CELLI: Pardon me? Please speak right into your mic.

MR. SINGH: Can they pass the notes to the witnesses?

HEARING OFFICER CELLI: Can people pass notes to the witnesses? No, I don't --

MR. SINGH: On the right-hand side, people that are sitting -- I think they are the staff members. Can they pass the notes in writing to one of the witnesses?

HEARING OFFICER CELLI: No.

MR. SINGH: No. So why is this happening?

HEARING OFFICER CELLI: So you saw somebody passing a note?

MR. SINGH: Yes, a note was passed here.

MS. LICHMAN: Mr. Celli, the note was passed from another witness to us to tell us that there is a section of a manual that we could look at if we needed to.

HEARING OFFICER CELLI: Okay. Thank you.

So thanks for bringing that to my attention, we'll proceed.

Go on.

MR. WHEATLAND: I think Andy had another part to his question though. He was also asking about the East Altamont plant, if I understand correctly, and what impact, if any, that would have in terms of the NOTAM on air space.

MR. YURTIS: This is Barry Yurtis.

Right now the NOTAM that is recommended for the Mariposa Energy Plant is not specific to anyone but the Mariposa Energy Plant, doesn't relate to East Altamont plant.

MR. WILSON: Would you repeat that, please? I'm sorry, I was looking at something else. That's my fault.

MR. YURTIS: The NOTAM that was recommended to be filed in the FAA's determination of no hazard to air navigation for MEP relates only to MEP and not the East Altamont plant that is not under construction.

MR. WILSON: Thank you. I would agree. But if East Altamont power plant is licensed, we've heard this before; so with East Altamont being a larger power plant than Mariposa Energy, then it would also be recommended that a NOTAM or a marking on the chart, NOTAM being Notice to Airmen, that it would also be marked on the chart for pilots to avoid overflight of that, correct?

HEARING OFFICER CELLI: Let's have the witnesses

identify themselves before they speak, because, just so you understand, we have people who are listening on the telephone. So before anyone speaks, give your name and answer the question. Thank you.

MR. YURTIS: I'm sorry, I kind of lost your question, but --

HEARING OFFICER CELLI: Your name.

MR. YURTIS: Barry Yurtis.

One more time. I'm sorry. Would you state that question one more time?

MR. WILSON: Okay. So if it's a requirement for MEP to have a NOTAM or a marking on the chart for pilots to avoid overflight of that power plant that would be marked by light, aviation lighting, then it would be the same for East Altamont.

MR. YURTIS: I can't say that definitively because it's the FAA that makes that requirement, but there probably would be the same NOTAM issued for that plant; but that would be speculation because it's up to the FAA whether they want to issue that type of a requirement or not.

MR. WILSON: Then let's further define NOTAM. N-O-T-A-M, Notice to Airmen. How does it originate?

MR. YURTIS: Well, a Notice to Airmen originates with an originator; in other words, it might be an

airport, it might be the FAA, it might be the airlines. There are a number of entities that may be an originator of a NOTAM.

MR. WILSON: Could Mariposa Energy request a NOTAM be placed on the chart?

MR. YURTIS: Mariposa Energy could request it, but Mariposa would not be the originator of the NOTAM. They would be the requestor. They'd have to go to a recognized agency with standing in order to have the NOTAM published.

MR. WILSON: Okay. So we have some common ground with the NOTAM. But let's talk about a marking on the chart now.

If a designation on the chart itself, on an FAA aeronautical chart has a statement to avoid overflight of the power plant, who would -- who would initiate that?

MR. YURTIS: Again, it would be the FAA that would make the decision on whether to put that on the chart or not. Mariposa could make a request to the FAA to have that put on the chart, but it would be, again, up to the FAA whether they wanted to do that or not. It's not a decision for the MEP, they would simply be a requestor. It would be up to the FAA. And it's under their authority where they would determine whether that marking would be placed there or not.

MR. WILSON: On the area of chart identification, so it would be -- what would airport sponsor, the airport being Byron Airport. Would they request -- do they have authority to request the marking on the --

MR. YURTIS: They have the authority, yes, they could make that request.

MR. WILSON: Then I would like Trans 7 and Trans 8 to reflect that Mariposa contact the Byron Airport sponsor --

HEARING OFFICER CELLI: That will be something that you would put in your brief, because right now we're just taking the evidence. When you write your brief, you're going to say these are my arguments in favor of why it should be marked.

MR. WILSON: Okay. I think we're a little bit beyond -- I think we're beyond the first part of the question that I started out with. So let's start on second part.

Would you explain the AIM again, the Aeronautical Information Manual?

MR. MOSS: The Aeronautical Information Manual is published by the -- I'm sorry, Douglas Moss.

The Aeronautical Information Manual is a document published by the Federal Aviation Administration, and it provides general guidance primarily in air traffic control

communications navigation to the pilots, but it is not a document that is enforceable, if you will; there's no provisions in there for mandatory compliance, but it's general guidance and principles.

MR. WILSON: Okay. So I'd like to go around to each aviation expert. I think I can get it down to a yes or no answer. Two questions.

So we'll start with you, Mr. Moss. Aviation background?

MR. MOSS: You're asking me what my background is?

MR. WILSON: No, no, just one of the aviation experts, correct?

So my question is -- and we can pass the microphone around. In your professional history of aviation, have you ever made reference to the AIM? Question one.

Number two question, has there ever been an aviation lawsuit where a pilot has been held accountable because he or she did not follow the AIM?

MR. MOSS: I have referenced the AIM in my previous testimonies in other cases, but generally it's for general principles and standards within the industry.

And second of all, I am not aware of any specific cases where a violation was based upon a non-compliance

with the AIM.

MR. WILSON: Would you please pass the microphone to the next aviation expert.

MR. OLSON: Can you repeat the question, please?

MR. WILSON: In your aviation history, in your professional history, have you ever referenced to the AIM, and do you know of any court case where a pilot was held accountable because he or she did not follow the procedures in the AIM?

MR. OLSON: I have used and referenced the AIM in my experience, and I'm not aware of any court case in which it was enforced as well.

MR. WILSON: Thank you. Would you pass the microphone to the next --

HEARING OFFICER CELLI: Maybe if you just asked if any -- in the inverse, is there anyone on the panel who has ever, and then if there is, then we'll know; otherwise, we can assume that no one has ever heard of --

MR. WILSON: So let's ask the first question by a show of hands if the -- and I'm getting a thumbs up from our chair here.

So the first question, all hands, in the aviation industry, have any of you used the AIM, the Aeronautical Information Manual, in your professional careers as a reference at any time?

Does anybody say no, they have never used -- I think we have one no --

HEARING OFFICER CELLI: Just state the names of the people who have used the AIM, if you would. From your perspective, you can see their nametags.

MR. WILSON: All right. So we'll do it again.

The people that have made reference to the AIM in their professional careers.

Okay. So we have Olson, Moss, Lichman, Yurtis. Is it Solberg? No, Solberg is not raising his hand, but it's Wardall.

Okay. Hands down. The two people that have never used the AIM in their professional careers as a reference, we have Shiu, we have Hess, and we have Solberg.

Thank you very much.

HEARING OFFICER CELLI: Okay. There was a second half of your question.

MR. WILSON: So the second question was, in your professional careers, do you know of any lawsuits where either by the FAA or other third parties that sued on the base accident, for whatever reason, any lawsuit that a pilot was held accountable because they did not follow the procedures in the AIM?

HEARING OFFICER CELLI: Show of hands if any of

you are aware of any such cases.

MR. WILSON: There's no show of hands.

HEARING OFFICER CELLI: Record should reflect no show of hands.

MR. WILSON: No show of hands.

Thank you.

So I think we can -- we're getting close to the end on this.

Then on the AIM, the Aeronautical Information Manual, in the new section that was published 8/26/10, I believe it became effective January of this year, 2011, then how -- I want to go around the table one more time. Based on the AIM, the question is in reference to 7-5-15, item A, flight hazards exist around thermal plumes.

So if we could just go -- ask the question again, could I have a show of hand of pilots, either whether you're current or not current.

So would the pilots raise their hands.

Okay. We have one, two, three, four, five --

HEARING OFFICER CELLI: State their names.

MR. WILSON: Five pilots.

HEARING OFFICER CELLI: State the names of who the pilots are.

MR. WILSON: Pilots are -- could I have a show of hands again?

We've got Olson, we've got Moss, we've got Yurtis, Solberg. Is it Wardall?

MR. WARDALL: Wardall.

MR. WILSON: Wardall.

Okay. All right. And then I want a show of hands if you're a pilot and you're aware of the AIM, would you fly through the plume?

Let me rephrase that.

You have looked -- how many have seen the model that has been presented at the Contra Costa County Land Use Commission? Would the pilots raise their hands.

Okay. Yurtis, Solberg, and Wardall.

I would like to exclude them from my questioning.

HEARING OFFICER CELLI: Before you do, let me ask, I'm hearing telephone voices. Is there a way -- first of all, if you're on the telephone, please mute your telephone at home, and that will help our audio here at BBID, because we're hearing voices and background noise. Maybe have your telephone -- your TV on in the background or something. So if you're on the telephone, please mute your phone.

Thank you. That helps the problem.

Now, Mr. Wilson, it sounds to me like these questions that you're asking, I think you're going to need to ask individuals now because it doesn't lend itself to

the raising of the hands. I don't think we're getting a good record.

MR. WILSON: Let's -- let me rephrase the question. We'll go around to each of the pilots.

HEARING OFFICER CELLI: Okay.

MR. WILSON: So based on what you've seen in the AIM, would you -- flight hazards exist around thermal plumes, would you fly through the plume at any height?

MR. MOSS: Douglas Moss.

First of all, I disagree with the statement that there are definite flight hazards within a plume; and second of all, I would not fly through a plume unless I had justification to do so.

MR. WILSON: Okay. So, Mr. Moss, then what you're saying is regardless of what the AIM says, any part of the AIM, the full entire document, that you would just do whatever you wanted to do regardless of what the AIM says.

MR. MOSS: No, that is not what I said.

MR. WILSON: Okay. Could you repeat what you said?

MR. MOSS: I said that I would not fly through a plume unless I had justification to do so.

MR. WILSON: Okay. I can accept that. And, therefore, that being marked on the chart in a brief and

it's requested that it be noted on the chart that pilots do not fly over the plume, or avoid plume, avoid overflight of the plume, this one does --

HEARING OFFICER CELLI: This one does.

MR. WILSON: -- then, that would reduce the air space in that area.

Mr. Moss; is that correct?

MR. MOSS: If it were marked on a chart to avoid overflight of a plume, then logically that particular area defines would generally be not -- unavailable for flight, that's correct.

MR. WILSON: Okay.

MS. LICHMAN: If I may add.

MR. WILSON: Yes.

HEARING OFFICER CELLI: Wait. Wait. Wait. Identify yourself.

MS. LICHMAN: Barbara Lichman.

A chart is not a regulatory document, therefore, while he would in all good professional sense avoid what is on the chart, he need not from a regulatory perspective.

MR. WILSON: I would disagree with that because there are many --

HEARING OFFICER CELLI: Well, this is -- let's not have -- this isn't a conversation. It's really you're

eliciting evidence from them.

MR. WILSON: Okay. Okay.

MR. YURTIS: Barry Yurtis.

As far as the charts and regulatory document, a chart can become regulatory in certain cases where it depicts restricted areas or prohibited areas. A prohibited area is an area depicted on the chart that is -- it is prohibited in which we can overfly, such as over the White House would be a prohibited area. And in that case, a chart can be regulatory.

However, in the case of putting an advisory on a sectional aeronautical chart, that would simply be an advisory to avoid overflight, it would have no basis of law in regulation.

MR. WILSON: Mr. Yurtis, you're a pilot.

MR. YURTIS: Yes.

MR. WILSON: Have you ever -- could you explain or ever heard of what an approach chart is or what an approach plate is?

MR. YURTIS: Can I explain what an approach chart is?

MR. WILSON: Yes.

HEARING OFFICER CELLI: State your name.

MR. YURTIS: You know, I was just talking about a sectional aeronautical chart, not an approach chart.

MR. WILSON: This is Barry Yurtis.

MR. YURTIS: Barry Yurtis.

MR. WILSON: Go ahead.

MR. YURTIS: I just want to clarify that we're talking about the same subject or a different subject.

MR. WILSON: Okay. So I would like to go with the pilots again.

Then would you not -- would you agree or concur with -- I'll word it this way: Would you agree and concur with Douglas Moss that only in an emergency or if something happened that he had to fly over the plume that he would fly over the plume?

HEARING OFFICER CELLI: Wait. Wait. Wait.

MR. MOSS: I believe that you're misstating my testimony.

This is Douglas Moss.

MR. WILSON: Okay. Let's -- let's start over.

MR. MOSS: Douglas Moss.

I believe you're misstating my testimony. I said I would not fly over a plume unless I had justification to do so.

MR. WILSON: Okay. Very good.

Mr. Olson.

MR. OLSON: Yes. Please repeat the question.

MR. WILSON: Would you -- with the statement in

the AIM, flight hazards exist around thermal plumes, would you avoid flying over the plume?

MR. OLSON: I would only fly over the plume if I had justification to do so as well.

MR. WILSON: Okay. Next pilot. I believe it's Mr. Yurtis.

HEARING OFFICER CELLI: State your name.

MR. YURTIS: Same answer.

MR. WILSON: And we have two more pilots. Could I have --

MR. WARDALL: I too would avoid flying over a plume.

HEARING OFFICER CELLI: And that's --

MR. WARDALL: This is David Wardall.

HEARING OFFICER CELLI: Thank you.

MR. SOLBERG: Same answer. I would avoid -- Andy Solberg.

I would avoid flying over a plume directly.

HEARING OFFICER CELLI: All right. Thank you very much.

MR. SOLBERG: Thank you.

MR. WILSON: I think we're beyond the plumes. So I would respectfully request, and I will brief it, that Cal Pilots will recommend that wherever the source, whatever the legal source has to be, that the project

manager for Mariposa Energy would approach a request from the airport sponsor that a marking be put on the chart if MEP is licensed.

HEARING OFFICER CELLI: Thank you.

Any further questions of these witnesses?

Mr. Wilson.

MR. WILSON: Yes. I just got through the plume card. So do you want to -- do you want to stop here and ask if any of the other, because I was taking the lead on this?

HEARING OFFICER CELLI: No. You know what? I'd like you to continue with -- get through all of your cross-examination questions, and then what I'm going to do is go through the rest of the panel.

MR. WILSON: Okay. I had a -- I -- I think I -- what I'm trying to do ask avoid a lot of questioning. And let me just think for a moment on what was said. I think I can live with what was said, not to venture into some other areas. I think I have enough information.

I would like to move on to flight patterns. So Byron Airport, the Byron Airport has -- typically an airport would have, typically, a level altitude that would be the airport pattern. Typically they're around a thousand feet, AGL. So this pattern is typically an oval pattern, and typically it's designated as one circular

oval. So I have as part of my evidence, I believe it's 704, that shows the patterns of the Byron Airport.

Has anybody on the panel had time to review those or look at those?

HEARING OFFICER CELLI: Show of hands? How many people have had a chance to look at Mr. Wilson's exhibits?

While we're doing that, Mr. Wilson, 704, I think what I'd like to do at this time is receive your motion to enter your exhibits into the record. Would you move your exhibits in at this time?

MR. WILSON: Yes. Cal Pilots has Exhibit 700, 701, 702, 703, and 704.

HEARING OFFICER CELLI: 704 has already been received.

MR. WILSON: Well, four has been accepted, but it's accepted on land use, and 704 also has the pattern so --

HEARING OFFICER CELLI: The motion is to receive into evidence exhibits marked for identification 700 through 704.

Is there any objection from staff?

MS. WILLIS: There's no objection. Thank you.

HEARING OFFICER CELLI: Is there any objection from applicant?

MR. WHEATLAND: I do have a question.

Part of the exhibits have a declaration, have three declarations attached to them. Will those people be here to testify to those declarations?

MR. WILSON: We'll have to wait and see at that time. We had pilots here last night.

Can I make a call?

HEARING OFFICER CELLI: All right. Not this -- you don't need to call them right now, but they're available by phone to call in?

MR. WILSON: I can't confirm that at this time.

HEARING OFFICER CELLI: Okay.

MR. WHEATLAND: I have no objection to receiving those declarations as public comment, but if they are to be received as evidence, I would ask that those witnesses be sworn and available at least by phone.

HEARING OFFICER CELLI: Okay.

MR. WILSON: I accept that Mariposa Energy has written rebuttal testimony around those.

HEARING OFFICER CELLI: Isn't that the case? Have you --

MR. WHEATLAND: We did receive rebuttal testimony on -- yes, we are offering rebuttal to Mr. Wilson's testimony and to the declarations.

MR. WILSON: He's already offered rebuttal.

HEARING OFFICER CELLI: That's right.

MR. WILSON: So does he want to retract his rebuttal?

HEARING OFFICER CELLI: No. What I'm trying to figure out is what we have is, we have the testimony, and then we have your rebuttal in. And I don't believe we're going to get any surrebuttal in; he's not even sure whether his witnesses are available, therefore, if there's no redirect, I don't know why we'd have recross.

MR. WHEATLAND: All right. Well --

HEARING OFFICER CELLI: The burden is on the intervenor in this case, they're his conditions that he wants to propose.

MR. WHEATLAND: Yeah, we'll -- we'll agree to receipt of the declarations even if the witnesses are not available.

HEARING OFFICER CELLI: And if need be --

MR. WHEATLAND: And the Committee can give it whatever weight's appropriate.

HEARING OFFICER CELLI: And if need be -- and if they're available, maybe we'll cross that bridge when we come to it.

But at this time, is there any objection from any of the intervenors to the receipt of Exhibits 700 through 704?

Mr. Sarvey?

MR. SARVEY: No objection.

MR. GROOVER: No objection.

HEARING OFFICER CELLI: Mountain House has no objection.

Mr. Dighe, I need you to say yes or no on the record.

MR. DIGHE: No.

HEARING OFFICER CELLI: Thank you. He says no.

Mr. Singh?

MR. SINGH: No objection.

HEARING OFFICER CELLI: Says no objection.

No objection from Sierra Club.

Is Bob Simpson not here, Rob Simpson? I just noticed.

MS. JENNINGS: He's going to be late.

HEARING OFFICER CELLI: Okay. Thank you.

That being the case, 700, 701, 702, 703, and 704 are received into evidence.

(Whereupon, Cal Pilots Exhibits 700-704 were received into evidence.)

HEARING OFFICER CELLI: So forgive my intrusion, Mr. Wilson. You can go ahead with your questioning.

MR. WILSON: Okay. I notice -- I can't see that any of the witnesses have laptop computers, so I would like to offer as a reference the 11-by-17 sheet of paper.

HEARING OFFICER CELLI: For them to look at right now?

MR. WILSON: For them to look at, which is the --

HEARING OFFICER CELLI: I have a request. Why don't you stand up and walk it over to Mr. Solberg, and he can pass it around to the others.

And I'm glad this came up. Just for the intervenors, as a procedural matter, you never approach a witness without asking permission from the Committee, may I approach the witness.

So thank you for doing that, Mr. Wilson.

Showing it to Mr. Wheatland first, the record should reflect.

Mr. Feist, could you grab that paper from him?

Thank you.

It looks like the panel has an opportunity to have reviewed. Now, is that an exhibit we're talking about there?

MR. WILSON: It is part of Exhibit 704.

HEARING OFFICER CELLI: So we'll talk about that. As you refer to it, please refer to it as the map, the approach map, 704.

MR. WILSON: Okay. In the right hand -- top right-hand part of the drawing, would -- Mr. Moss, if you're the lead on this, if I could ask you to read the

colored key that starts can "Flight tracks."

MR. MOSS: Douglas Moss.

(Discussion off the record.)

MR. MOSS: Douglas Moss.

In the upper right-hand corner under "Flight tracks," we have several colored codes. The blue is departure flight paths; the amber is arrival flight paths, 1,000 foot pattern altitude AGL; the green is a touch-and-go flight paths, 1,000 feet pattern altitude; the dashed pink is helicopter flight training flight paths; the solid yellow is ultralight flight paths, 500 foot pattern altitude AGL; the solid purple is glider flight paths, 1,000 foot pattern altitude AGL; and the dashed black line is parachute drop landing zone.

MR. WILSON: Thank you, Mr. Moss.

So with -- what I'd like to do is ask another question, and we'll do it of each of the pilots.

Typically an airport would have one single pattern at one altitude. Would you -- Mr. Moss, would you please read the altitude of ultralights for this airport?

MR. MOSS: Douglas Moss.

The altitudes posted here are 1,000 feet and 500 feet.

MR. WILSON: So we have two altitudes for patterns.

MR. MOSS: Yes.

MR. WILSON: Okay. When -- we also have a variety of aircraft that's also in this airport. We have ultralights, we have gliders --

HEARING OFFICER CELLI: Actually, what you're doing, Mr. Wilson, is testifying. You want them to make that record.

MR. WILSON: Okay.

HEARING OFFICER CELLI: Ask them if they know and if they can tell you what the aircraft types are.

MR. WILSON: Okay. Let's stay with pattern, then I'll move on to the question.

Okay. So there's two parts to the airport. The patterns are two level patterns; is that correct

MR. MOSS: Ultralights and general aviation, 500 feet and a thousand feet.

MR. WILSON: Okay. So but we also have activity on both ends of the runway that are designated as helicopter areas. And what altitude can a helicopter hover and practice and take off and land at that part of the runway?

MR. MOSS: Well, on the -- Douglas Moss.

On the map there's no altitude published for the helicopters; but in general, the helicopters are at the lowest altitude.

MR. WILSON: Okay. Very good. Thank you.

And the parachutists, where are they located on the drawing?

MR. MOSS: On this map, the parachute drop landing, drop zone, which is a dashed black line, is on the northwestern boundary of the airfield.

MR. WILSON: Okay. Thank you very much.

Mr. Yurtis, go ahead.

MR. YURTIS: Barry Yurtis. I'd like to add something.

Your first statement was that generally airports have only one pattern at one altitude. I believe that's what you said.

MR. WILSON: That's correct.

MR. YURTIS: And I disagree with that.

MR. WILSON: Okay.

MR. YURTIS: I don't know where you obtained these flight tracks or these -- the traffic pattern diagram, I don't know what the source of that is, but the FAA has published an advisory circular dealing with traffic patterns at non-towered airports. And in publicizing this advisory circular, they make reference to different types of aircraft operating at that airport. They have ultralights, they might have gliders, they might have small single-engine, multi-engine aircraft, and much

larger jet-type aircraft.

And in this advisory circular, they segregate the type of aircraft by speed so that the smaller slower aircraft are generally close into the runway at 500 feet. The light single-engine, light multi-engine aircraft are at a thousand feet, slightly farther out. And then the turbo jet and the faster twins, the turbo props would be at a higher altitude, about 1500 feet generally, which is actually recommended by the advisory circular.

And the reason they do that is to segregate the aircraft by speed so you don't have a smaller lighter aircraft being overtaken by a faster aircraft. And don't forget this is at a non-towered airport, so the pilots are -- the aircraft are not separated by air traffic controllers, they separate themselves.

So this is a recommended pattern at all non-towered airports. So this is not unusual, this diagram is not unusual to see multiple traffic patterns. It's prescribed by the FAA. It doesn't mean they're all in operation at the same time, it just means that it prescribes different patterns based upon the type of aircraft flying.

HEARING OFFICER CELLI: We get that. We get that. Keep going.

MR. WILSON: Mr. Yurtis, thank you for that

comment; it saved a lot of time.

The other is if you notice that Mr. Yurtis said that it was advisory. So first he asked, I don't know where you got this from, but his question was, in his reference he said it was purely advisory.

Yeah, go ahead.

MR. YURTIS: In regard to being advisory, I was correct in stating that it's advisory, but the FAA in their advisory circular indicates in the applicability that it's published for the safety and the efficiency of the airport. These are airports that do not have operating control towers, therefore, the FAA has published recommendations for the different traffic patterns to promote the safety and the efficiency of the airport.

And yes, they are recommended because the pilots are -- are acting upon their own to separate themselves from other traffic. So yes, it is recommendations, yes, that's because they're allowing the pilots to depart from those traffic patterns if they feel necessary to avoid other aircraft. But that's where the advisory comes in. In other words, it's not just that the FAA says do what you want to around an airport, but they've established these procedures for the safety and the efficiency of the airport.

MR. WILSON: Very clear. Very clear.

So maybe we could pass the microphone back to Mr. Yurtis and with this question -- or let me hold the -- Mr. Moss is the lead, so we will lead with Mr. Moss.

So based on this airport, the Byron Airport, and the multitude of patterns, would it be possible to have a glider in the pattern, an ultralight in the pattern, a general aviation aircraft in the pattern, and let's just say one jet aircraft in the pattern all at the same time?

MR. YURTIS: Yes.

MR. WILSON: Thank you. Thank you.

So I just mentioned one aircraft in each pattern. So what if there were multiple aircraft? Could there be three or five? What if there were seven aircraft at multiple levels? And keep in mind this is an uncontrolled airport. These are self-managed aircraft by the pilot in command.

So if the pattern becomes full, would it be make safety sense that a pilot would begin either slowing up when he gets -- he begins receiving the information about the airport? That could be two miles out, could be five miles out, ten miles out where he picks up the weather.

He picks up the -- he's listening to the activity of the airport, and if he sees or hears all this chatter and traffic at multiple levels, multiple aircraft, what would be a procedure that that pilot would do as he's

approaching the airport? Would he speed up to get there faster? Would he slow down?

HEARING OFFICER CELLI: Well, actually, you have a good question pending. Let's hear what the witnesses say about what would be the procedure.

MR. MOSS: Douglas Moss.

When a non-towered airport, when their traffic pattern is congested, the pilots generally use several techniques to accommodate and adapt to the situation.

One technique would be to possibly slow down; another technique would be to possibly extend the downward wind leg, maybe widen the pattern slightly. The primary thing is the pilot needs to look at who's in the pattern, who's doing what, and actively try to fit in with the pattern. However, those deviations generally are small in nature, they don't take exorbitant extensions of downwinds or widening, they make some minor adjustments to each one of those parameters.

MR. WILSON: Okay. So if a pilot was approaching the Byron Airport, could he -- would he -- would he consider doing "S" turns to take some time to delay his time that he would get into the pattern?

MR. MOSS: Using an "S" -- Douglas Moss.

Using an "S" turn technique is one of the techniques commonly employed. It's not a primary

technique, but it is available in some occasions based upon the circumstances.

MR. WILSON: Thank you. And if a pilot was approaching the airport and he just -- he or she just felt it was too crowded, could he do a 360-degree turn to delay some time before he got into the pattern?

MR. MOSS: Douglas Moss.

Generally 360 degree turns are not recommended because sometimes it will conflict with other airplanes; but on occasion, under the right circumstances, it has been an effective technique

MR. WILSON: So with pilots self-managing themselves at the airport because there is no control tower, that could be -- and with the varied aircraft, especially if there was a study pilot or a new pilot or even an experienced pilot, that would be a maneuver based on the different aircraft that could possibly be in the pattern. Yes or no?

MR. MOSS: Is there a question -- I'm sorry, is there a question there? I did not hear a question.

MR. WILSON: If the pattern had multiple aircraft at multiple levels, to include helicopter operations, to include parachutists, if a pilot was approaching the airport, he might want to take some time to do a 360 or divert his flight to let the traffic patterns and the

activity at the airport clear before he landed, before he got into the pattern.

MR. MOSS: I'm sorry; I still don't hear a question.

MR. WILSON: Approaching the Byron Airport, you're listening to the weather, you're listening to the frequency to pick up the activity of the airport, make your announcement that you're approaching the airport. So at that time you're hearing more activity on the radio. There's two ultralights in the pattern, there's a three general aviation, three Cessnas 172s in the pattern, there could be one 170 in the pattern. So then we have a jet aircraft that's made his announcement that he's approaching the airport.

Based on different experience levels, could a pilot just decide that he wants to wait for the patterns to clear before he makes his approach, say five miles out?

MR. MOSS: Yes, that's always -- Douglas Moss.

That's an option that a pilot has.

MR. WILSON: If he was three miles out? He's not in the pattern yet, he's three miles away from the airport.

MR. MOSS: Douglas Moss.

Yes, that is an option the pilot has.

MR. WILSON: So Mariposa Energy is approximately

2.9 miles from the airport. So at that point the pilot has to be concerned if it's marked on the chart, he sees the lighting if -- daylight and evening lighting, so he would have to make a point not only to keep track of all the traffic in the pattern then he would have to see that he's got to avoid that power plant.

MR. MOSS: Douglas Moss.

There are numerous areas of concern, hazards, if you will; there's terrain, there's towers. Those things are generally visible. And so a pilot always has to think about hazards to his flight path and things to avoid. And if he saw a power plant, then he would take that into consideration and possibly avoid it if he saw a need to.

MR. WILSON: All right. Thank you.

I think I'm done with patterns and --

HEARING OFFICER CELLI: Yes, go ahead, Mr. Moss.

MR. MOSS: I'd like to mention that from a factual standpoint, that the proposed Mariposa power plant, there are high-tension power lines at a higher altitude than the power plant itself or -- so there are other areas of interest, of concern that would have a more prominent effect on them.

MR. WILSON: Mr. Moss, you're under oath, are you not?

MR. MOSS: Yes, I am.

MR. WILSON: Did Barbara Lichman say something to you, prior to your comment?

MR. MOSS: Yes, she said something, and she just reminded me of previous conversations that we had had.

MR. WILSON: Can I have his statement stricken from the record?

HEARING OFFICER CELLI: On what basis?

MR. WILSON: You've already made a ruling that they can't pass notes between each other. Is a note a whisper in the ear?

HEARING OFFICER CELLI: You know, there is a certain amount of communication that's going to go on between this panel, and you're free to cross-examine it.

MS. LICHMAN: If it will make Mr. Wilson happier -- this is Barbara Lichman -- I'll make the statement --

HEARING OFFICER CELLI: There is no question pending. And only if Mr. Wilson asks.

MS. LICHMAN: Okay.

HEARING OFFICER CELLI: Any question on this?

MR. WILSON: Barbara Lichman, what did you whisper in Mr. Douglas Moss's ear?

You knew I had to do that.

MS. LICHMAN: I know.

This is Barbara Lichman. I knew he had to do

that.

It was nothing mysterious. I simply reminded Mr. Moss that -- of the factual circumstances surrounding this power plant, that there are high-tension wires and other obstructions, if you will, that are at a much higher altitude than the power plant itself of which any aircraft in the vicinity for any reason would have to pay attention, to which any aircraft in the vicinity would have to pay attention.

HEARING OFFICER CELLI: So let's see what we can do to prevent cross-talk so that we can move on and get the evidence into the record today.

Thank you.

Go ahead, Mr. Wilson.

MR. WILSON: So we now go back to, because Barbara Lichman brought it up, then we have to go back to the thermal plumes. Keep in mind that Barbara Lichman was referring to physical obstacles, and the AIM specific addresses thermal plumes, which go much higher. So there's documentation in this case, Mariposa Energy, that the plume does rise someplace in the vicinity of a thousand feet, where the physical obstacles are down around 200 feet.

MR. WHEATLAND: Is that a question?

MR. WILSON: Yes.

HEARING OFFICER CELLI: That sounds like a statement of facts. I didn't hear the question in it.

MR. WILSON: Well, I'll ask -- I'll ask Mr. Moss then.

We have an opening of reference to physical heights of obstacles in the area, but we have to go back to the thermal plumes, which flight hazards exist around thermal plumes. Physical heights are referred to on aeronautical charts to give a physical height. On the thermal plume, however, based on the AIM, it's undefined as height; so physical heights, the pilot is aware of a -- as a particular number, a physical height, the height of a physical obstacle. Thermal plumes, however, are then addressed, do not -- it's -- flight hazards exist around thermal plumes. So it would be don't fly in and around thermal plumes, which are much higher than a physical.

MR. MOSS: Fail to -- Douglas Moss.

I did not hear a question.

HEARING OFFICER CELLI: And you're trying to elicit information. So what's the question you need -- what's the information you need from this witness?

MR. WILSON: I'll put it into parts.

In reference to physical obstacles and heights, are they so noted, the chart with a number, and what does that number mean?

MR. MOSS: Douglas Moss.

In general, significant obstacles are annotated with an altitude.

MR. WILSON: And in reference to thermal plumes, is there a specific height that's referenced in the AIM?

MR. MOSS: Douglas Moss.

In the AIM, I believe there is a number for significance. I believe it's 1,000 feet.

MR. WILSON: Thank you.

So I think we have a little bit better understanding in the thermal plumes height, we have a better understanding of the airport activity, that the airport is self-managed by pilots, and it -- it -- it's a complex airport because it's self-managed by pilots, doesn't have a control tower, and there's multiple activities typically not found in and around an airport. So I have this question.

HEARING OFFICER CELLI: Are there any further questions then?

MR. WILSON: Yes, I have --

HEARING OFFICER CELLI: Oh, okay. Because that sounded like --

MR. WILSON: I've summarized what we've done so far.

HEARING OFFICER CELLI: Okay.

MR. WILSON: Being that we have witnesses that Mr. Wheatland has said this is the largest panel he's ever fielded in this area, so it's big, it's difficult, so I thought I'd try to summarize what we think -- where we think we are at this point.

HEARING OFFICER CELLI: And with regard to that, how many questions more do we? Where are we at this point?

MR. WILSON: I think we're on the downhill side. I can't -- I'm not going to define a number, but it depends on what we have for --

HEARING OFFICER CELLI: I need you to move now with a bit of alacrity. So let's get these questions out, build your record, and let's get moving.

MR. WILSON: I'm going to bring up a reference on data tracks that are in staff's evidence 300 and 301. Understand that this is the evidence that staff has submitted.

So I'll phrase the question this way: There are two drawings of data tracks that staff has used in their 301 -- or 300 S.A. So have all the pilot witnesses seen those flight data tracks?

HEARING OFFICER CELLI: Do you know what page?

MR. WHEATLAND: Rather than ask all the pilots, just in the interest of time, we have a witness that's

available to address those flight paths. Could we just take it up with the witness that's prepared?

MR. WILSON: I would agree to that.

MR. YURTIS: Barry Yurtis.

MR. WILSON: Mr. Yurtis, the -- there are two drawings, there are two dates. So either one of the drawings will do.

MR. YURTIS: Yeah. I've got the 12-8-09 to 1-3-2010.

MR. WILSON: Okay, very good.

HEARING OFFICER CELLI: And that was Barry Yurtis speaking.

MR. YURTIS: Barry Yurtis again.

MR. WILSON: So there are multiple color codes on the right-hand side. Could you just read the color codes off?

MR. YURTIS: Orange, green, blue, and another color.

MR. WILSON: Could you read the key for feet, altitude?

MR. YURTIS: Yeah. Orange would be 0500 feet; green, 500 to a thousand feet; blue would be a thousand to 1300 feet; and then I guess the other one would be kind of a yellowish color, that's 1300 to 1500 feet.

MR. WILSON: Very good. And then there's a

circle that describe the MEP site, Mariposa Energy site with a circle around it?

MR. YURTIS: Yes.

MR. WILSON: And the circle is what dimension?

MR. YURTIS: It's five nautical miles.

MR. WILSON: You want to correct that?

MR. YURTIS: No.

MR. WILSON: I'm looking -- it's five miles?

MR. YURTIS: Oh, I'm sorry. It's a half mile. It's a half mile.

MR. WILSON: Okay.

MR. YURTIS: You're talking about the small circle around the site, not the big yellow circle.

MR. WILSON: That's correct.

MR. YURTIS: Okay. Yeah, I believe the small circle --

MR. WILSON: The green circle.

MR. YURTIS: The small circle around the plant is a half mile.

HEARING OFFICER CELLI: Actually, folks, these figures, which are figures 4A and 4B in Exhibit 301 pretty much describe themselves pretty well. So I think if you can just go ahead and ask questions about it, we can move on.

MR. WILSON: I just have a couple of questions.

But we've got to determine -- so per the key, if you take a pen and you mark the key on a separate sheet of paper, the zero to two miles, I come up with the circle is one mile in diameter.

MR. YURTIS: I can't validate that.

MR. WILSON: Okay. So it's a half-mile radius, one mile circle.

Okay. So there's some activity that overflies the Mariposa Energy Power Plant. So where do these -- where do these lines come from, where do they originate from?

MR. YURTIS: This is the -- the lines on this chart were obtained from the Federal Aviation Administration, specifically Northern California Terminal Radar Approach Control or TRACON. It was extracted from the data tapes at the air traffic control facility and processed through a software program called PDARS, Performance Analysis and Reporting System. PDARS was developed by ATEC Corporation in Sunnyvale, California in conjunction with the FAA and NASA.

MR. WILSON: Okay. So there seems to be in the pattern, which is designated by blue, I guess, it shows -- so it's a blob, there's so much activity; is that correct?

MR. YURTIS: I'm sorry; I couldn't understand you.

MR. WILSON: Most activity is in the pattern on --

MR. YURTIS: I guess that would be an understatement.

MR. WILSON: Okay. But for clarification for the Committee, again, could you phrase how much time? So this doesn't all happen at the same time, so again, could you --

MR. YURTIS: Well, this is -- this is from December 8th of 2009 to January 3rd of 2010. So was that -- is that a month? About a month long.

MR. WILSON: No, no, that's good. I just didn't want to give the impression that this happens all the time, that there's that many aircraft in the pattern.

Thank you.

MR. YURTIS: Okay.

MR. WILSON: But as you get closer to -- as you get further away from the airport and closer to MEP, those flight tracks get thinner and thinner; is that correct?

MR. YURTIS: I think you said get thinner. I'm having a --

MR. WILSON: There's fewer tracks; how's --

MR. YURTIS: Fewer tracks, that's right.

MR. WILSON: So -- so the radar height, in order to get this -- to become part of this drawing, an aircraft

would have to do what? Fly in the area. And what else would have to have in order for the radar to pick this up?

MR. YURTIS: If you're asking if the aircraft has to be transponder equipped, the answer is yes.

MR. WILSON: Okay. Very good.

MR. YURTIS: For the benefit of the panel, a transponder is an electronic device within the cockpit that transmits a coded pulse to the air traffic control facility so that it facilitates radar identification from the radar sensor.

MR. WILSON: Good. Good.

So now we talk about the types of aircraft that at the airport.

So if -- if we have an ultralight that's flying in the pattern -- do all ultralights have transponders, and is that a requirement at this class of airport?

MR. YURTIS: Airports don't have requirements for transponders, generally speaking. In fact, it's -- airports never have requirements for transponders. It has to do with the air space the aircraft is flying in and nothing to do with the airport.

MR. WILSON: And that was Barry Yurtis answering that.

MR. YURTIS: Barry Yurtis.

MR. WILSON: So how -- so if that's the case and

it's only voluntary, then how accurate or how dependable are the radar tracks for the activity at this airport?

MR. YURTIS: Well, the tracks that you see are accurate. You said how dependable are the tracks? The tracks are accurate.

MR. WILSON: In other words -- oh, wait a minute. I got it. I got it.

So they're accurate -- well, let's change that; they're extremely accurate, but for only -- you will only see a data track if an aircraft has a transponder, as you previously --

MR. YURTIS: That's a correct statement.

MR. WILSON: Then we also said that not all aircraft have to have transponders at this airport; is that correct?

MR. YURTIS: That would be -- I would -- I would think so, but I can't validate that.

MR. WILSON: Okay. So we really don't know based on the data tracks how many aircraft are really using this airport in these areas; is that correct?

MR. YURTIS: Well, we -- we certainly can. The airport management reports annual traffic count. This airport is not equipped with an FAA air traffic control tower; so the FAA does not do traffic counts at such airports. So the FAA relies upon the airport operator to

submit the annual traffic numbers to be publicized through various and sundry means, private organizations, RNAV is one, which then publicizes the amount of traffic at the airport. Airport management at Byron has reported the annual operations at approximately 60,000 per year.

HEARING OFFICER CELLI: Thank you.

And I think the point, Mr. Wilson, is the only thing that shows up in figure 1 at 4A and 4B would be some aircraft equipped with a transponder.

MR. WILSON: That is correct.

HEARING OFFICER CELLI: Okay.

MR. WILSON: And I have one more question based on that.

So aircraft -- the Byron Airport has an RNAV approach to the airport which is considered an instrument approach. Are all aircraft required to have a transponder when they make that approach?

MR. YURTIS: They are not.

MR. WILSON: I did not hear that.

MR. YURTIS: They are not required to have a transponder to make the approach.

MR. WILSON: Thank you.

HEARING OFFICER CELLI: Thank you. Is that -- anything further?

MR. WILSON: So than the fact of the total

airport count by the airport documentation and through, I believe you said, airport manager, what was the reference you used as the total count for the operations of the airport?

MR. YURTIS: Airport management is reporting.

MR. WILSON: Okay.

MR. YURTIS: The airport manager is reporting 60,000 annual operations a year.

MR. WILSON: Okay. So -- and that was Barry Yurtis speaking.

MR. YURTIS: Barry Yurtis. I'm sorry.

MR. WILSON: So you would assume that this airport can accommodate aircraft that are flying under instrument flight rules, which there are certain standards for that, so in the clouds, in the rain where there are certain criteria where -- distances and so on that a pilot would have to be instrument rated and his aircraft would also have to be rated for this type of approach being an RNAV approach, so --

HEARING OFFICER CELLI: Is that a question?

MR. WILSON: No.

So rather than ask a whole --

HEARING OFFICER CELLI: You might want to ask him if he -- if that's a correct statement.

MR. WILSON: Is that correct, Mr. Yurtis?

MR. YURTIS: If you asked does an aircraft have to be --

MR. WILSON: I didn't ask. Let's talk about a statement first.

HEARING OFFICER CELLI: I'm just trying to turn that statement into a question so we have some sort of dialog here.

MR. YURTIS: An aircraft has to be equipped in order to execute an instrument approach procedure, appropriately equipped.

HEARING OFFICER CELLI: Okay. Thank you.

MR. WILSON: As opposed to -- and so would it be -- since this airport does have gliders, not motorized, would a glider be making an IFR approach to the airport?

MR. YURTIS: I'm -- I'm not a glider pilot, but in my 25 years, or actually 40 years in aviation, I've never seen a glider make an instrument approach procedure.

MR. WILSON: Okay.

HEARING OFFICER CELLI: What is IFR?

MR. YURTIS: I'm sorry. Instrument flight -- who said that? Did I say that?

HEARING OFFICER CELLI: Mr. Wilson, your question was included --

MR. WILSON: Let's finish with the IFR.

HEARING OFFICER CELLI: Okay. Go ahead.

MR. YURTIS: We have IFR and VFR; they're two acronyms.

Let me start with VFR; Visual Flight Rules. When we are in visual meteorological conditions --

HEARING OFFICER CELLI: Got it. And the other would be instrument?

MR. YURTIS: -- in other words, you're not in clouds.

Pardon me?

HEARING OFFICER CELLI: The other would be instrument?

MR. YURTIS: That's right.

So visual flight rules versus instrument flight rules; inside the clouds, outside the clouds, very simply.

HEARING OFFICER CELLI: Thank you. We're tracking.

MR. WILSON: So we kind of know, we're looking at the only physical sense that we have of this airport are the data tracks. And to get any sense of what the activity is there, day or night, whether it's instrument flight rules over this period of time or VFR, visual flight rules, and there are certain requirement for that.

So now we look at this circle, we're back to the circle around MEP, and we -- can you just -- there aren't very many lines there over this period of time. Could you

kind of just give a sense of -- we don't have a blob, so we might be able to come to some number over the power plant.

MR. YURTIS: Well, let me give you a more complete answer.

We just got a couple of diagrams here of flight tracks that were obtained very early in our research, but these were obtained actually in December of 2009, but since December of 2009, we've, through the Freedom of Information Act, obtained -- every two week's we've gone back to the FAA for additional flight tracks. So now we have nearly a year of flight tracks identical to this. In fact, I believe there's slightly over 9500 flight tracks of which I believe the correct number would be 50 would have actually been in the vicinity of the MEP.

So there are fewer, but actually when compared to nearly 2010 are 10,000 flight tracks, it's an extremely small number, 50 out of 9500. I'm not sure what that percentage is. We have that data available for the Commission if you'd like to see it.

HEARING OFFICER CELLI: It's in the record now.

Go ahead.

MR. WILSON: So now we -- so -- so based on your previous testimony that no aircraft needs a transponder in this area, and the flight data track is only recorded by a

transponder, and the only other number that we have to go by is 60,000 operations per year, how accurate do you think this is?

MR. YURTIS: Extremely accurate.

MR. WILSON: Based on what?

MR. YURTIS: Based upon what I just said.

MR. WILSON: 60,000 operations?

MR. YURTIS: I'm not sure where you're going; I'm not sure how to answer your question.

MR. WILSON: So would you repeat how many flights are over the circle which is designated on the drawing for MEP?

MR. YURTIS: 50 out of 9500.

MR. WILSON: Okay. Is MEP far enough away from the airport that an aircraft could overfly that area without landing at the airport and without having a transponder?

MR. YURTIS: Distance from the airport doesn't have anything to do with the overflight or the ability or the need -- not the need or the ability to overfly a power plant. It has nothing to do with distance from the airport.

MR. WILSON: Good. Thank you.

So you could have multiple flights flying over the site without reference to an operation at the airport.

So could you define an operation -- what is an operation at an airport? What makes up those 60,000?

MR. YURTIS: An operation at an airport is either a take off or a landing. So if an aircraft lands or does a touch and go, approaches the airport, lands and then takes off, that would be two operations; a landing is one operation, a take off is a separate operation.

MR. WILSON: So if an aircraft, one of these ultralights, any other general aviation aircraft flying at any of these altitudes, if it was overflying that area and not landing at that area or taking off from that airport -- excuse me, landing or taking off from the airport, it would not be considered an operation.

MR. YURTIS: You have to take off or land at the airport to be considered an operation, an accountable operation at that airport.

MR. WILSON: Thank you.

So if an aircraft was flying from point A to point B, neither being the Byron Airport, and they overflew that circle that's designated, and they did not have a transponder, would it be recorded as part of the 60,000?

MR. YURTIS: This only records transponder-equipped aircraft.

MR. WILSON: Thank you.

And it's not part of an operation at the airport.

MR. YURTIS: Not unless they either -- not unless they landed or took off from the airport.

MR. WILSON: Thank you.

MR. YURTIS: But the act of overflying the MEP would not be considered an operation. You're talking mutually exclusive things here. An operation has nothing to do with overflight.

MR. WILSON: Thank you.

And does the Commission understand what we --

HEARING OFFICER CELLI: Yes, we do.

How are you doing, Mr. Wilson?

MR. WILSON: I'm doing great. I could be another three or four days, but I'm sure that you want to come to a conclusion where we could move on. So if you would just give me a moment.

I would like to talk about instrument approaches -- an instrument approach. And I think I got it down to so if an airport would have an ILS approach, instrument landing system, which MEP doesn't, but this is -- I can -- which MEP doesn't, the radio beacons that make up and consist of the approach, are they land based or are they satellite based?

MR. YURTIS: You're speaking of an instrument landing system, ILS approach?

MR. WILSON: ILS.

MR. YURTIS: They're land based.

MR. WILSON: Mariposa Energy -- excuse me, the Byron Airport has an RNAV approach. What does RNAV stand for?

MR. YURTIS: RNAV is area navigation, R-N-A-V.

MR. WILSON: And is that a land-based radio beacon of some sort, or is it satellite based?

MR. YURTIS: An RNAV instrument approach is a satellite-based approach.

MR. WILSON: Okay. Thank you.

Typically, the ILS approach is diamond shaped; more people refer to it as a funnel. So it's wider the further out you are, and it gets narrower as you get closer to the end of the runway. Would you agree with that?

MR. YURTIS: I don't agree with that.

MR. WILSON: All right. Would you describe what it would look like?

MR. YURTIS: An instrument approach has no width; according to Federal Aviation Regulations Part 91, pilots are required to maintain centerline. So an instrument approach from a pilot's perspective has no width. However, in the design of an instrument approach procedure, the FAA applies a regulation, FAR Part 77,

which ask --

MR. SIMPSON: Would you slow down a little bit? There's a fair bit of echo coming from your mic.

MR. YURTIS: I could pull it away.

HEARING OFFICER CELLI: Just go slower.

MR. YURTIS: Okay. Part 77 is objects affecting our navigation, and within the provisions of FAR Part 77, it indicates that in regulatory language to reference another section or an FAA order called the U.S. Standard for Terminal Instrument Procedures, or TERPS, we call it TERPS for short. And it says within TERPS that where you end up with a design of an instrument approach procedure, both Parts 77 and TERPS have very complex array of imaginary surfaces.

Both Parts 77 and TERPS and these imaginary surfaces, through an engineering process, are used and overlaid to the area surrounding an airport. And in doing that, they actually design instrument approach procedures.

And in that case, I think that's what Mr. Wilson was referring to, is it's -- for an ILS approach, the protected air space or the imaginary surfaces project outward from the approach into the runway in a trapezoidal shape, they go up at an incline generally speaking, a three-degree glide slope or a three-degree incline for an instrument landing approach. And these imaginary surfaces

can't be seen by a pilot; most pilots are not aware they're even there. But from an engineering standpoint and from an FAA standpoint, that's how they determine the protected air space for a pilot who's actually executing such an instrument approach procedure. They're guaranteed a certain level of protection from obstacles on the ground, from terrain, and they do that by designing this approach according to the standards set forth in TERPS. So I believe that's where you're going.

MR. WILSON: Thank you.

HEARING OFFICER CELLI: And for the record, I want the people on the telephone to know that was Barry Yurtis speaking.

Go ahead.

MR. WILSON: I think I'm near the end.

So on an RNAV approach, the pilot is -- is trying to maintain some line going towards the airport runway. What's the deviation on the instrument where it begins to show where he's beginning to deviate from that centerline?

MR. YURTIS: So I'm not sure I understand what you're asking me. Are you talking about if --

MR. WILSON: What's the -- what does the pilot see as he deviates -- if he's not on course, on centerline to the -- for an RNAV approach to the Byron Airport? What would indicate that he is beginning to drift off

centerline?

MR. YURTIS: Very simply, there's an instrument in the cockpit, very basic, today they have much more advanced instruments, but you might call it a course-deviation indicator. It's a vertical needle that will swing left or right as the pilot deviates from the centerline. If the pilot is on the centerline of the instrument approach procedure, the vertical needle will be centered; as they drift off, that needle will swing left or right as appropriate. And the degree of the swing of the needle will determine how far off course that pilot is.

MR. WILSON: Okay. And then how far off course would that pilot have to -- where would the pilot have to be in order for him to declare a missed approach if he wasn't on course?

MR. YURTIS: Well, this is Barry Yurtis again.

When a pilot that is training for their instrument rating on their pilot certificate, the FAA gives them a flight check, and they apply what are called the FAA's practical test standards. And in the practical test standards, the FAA requires that they maintain no more than a three-quarter needle deflection of the course deviation indicator. If they allow more than a three-quarter deviation of the course deviation indicator,

it is a bust for the flight check.

Some pilots adhere to that when they are actually flying the aircraft after they've received their license; others might let the course deviation indicator go farther. But it's generally recognized that if a pilot allows a full deflection of the course deviation indicator, they are lost. And certainly with a full deflection of the course deviation indicator, they would have to execute a missed approach at that point.

MR. WILSON: And then what distance would that be in nautical miles?

MR. YURTIS: A full deviation of the course deviation indicator is three-tenths of a mile.

MR. WILSON: Does that include the safety of the approach is just three-tenths, or is there another three-tenths involved?

MR. YURTIS: I don't understand the question.

MR. WILSON: So when the approach is designed by TERPS, or based on TERPS, then it's designed for what width, three-tenths of a mile for an RNAV approach?

MR. YURTIS: I still don't -- I'm sorry, I don't understand what you're asking me.

MR. WILSON: TERPS approaches are designed that the layout and the width of the TERPS approach, that's a protected zone for the pilot. He -- a pilot typically

doesn't see that. All he sees is the line on the chart. When he goes off course, then he declares a missed approach. So compared --

MR. YURTIS: I think the best way to answer -- I think I understood what you're asking me now.

Barry Yurtis. Barry Yurtis. Finally did it.

I'm going to answer your question, but I have a report that I've done a study that I did on the exact questions that Mr. Wilson asking, and I'd like to offer that up to the Commission too when I'm finished speaking.

Let me just go back to the beginning.

With an RNAV approach, you have two types -- basically two types of RNAV approaches. You have -- and this gets a little technical, that's why I want to offer up the report.

You have what's called an LNAV or lateral nav, which for all intents and purposes is non-precision because it doesn't provide vertical guidance to the ground, only lateral navigation.

On the other hand, you have what's called an LPV RNAV approach, which also provides vertical guidance. It's more or less like a precision ILS, but technically it's not classified as a precision approach.

The LPV approach, we were talking about those TERP surfaces. The LPV approach has a trapezoidal array

of the surfaces that project outward from the runway, and they're trapezoidal in shape. And so the closer the runway are, they're closer together, farther away, they diverge in a trapezoid.

However, the LNAV, the non-precision approach, is not trapezoidal in shape, it's actually rectangular in shape. So in regard to the LNAV, the rectangular imaginary surface, it is six-tenths of a mile wide from the centerline, six-tenths of a mile each side of centerline.

Of course, with the precision or the LPV approach, it's trapezoidal in shape, so it doesn't have a constant width.

Now, with a three-degree -- not a three-degree, but a three-tenths of a mile full needle deflection of the CDI, that puts the pilot well within the protected air space of either the LPV or the LNAV.

MR. WILSON: Very good.

And we had an offer by Barry Yurtis, who just got through speaking, to offer this to the Commission. So I would accept -- Mr. Wheatland? I would accept -- without seeing it, I would -- Cal Pilots would accept that in evidence.

HEARING OFFICER CELLI: In other words, you're offering to stipulate whatever that document is to be

received into evidence as -- that would be Cal Pilots next in order, which would be --

MR. WHEATLAND: It would be Exhibit 70, I believe.

HEARING OFFICER CELLI: Oh, you've already put it in?

MR. WHEATLAND: Well, no, you asked next in order. I think the next in order would be number 70.

HEARING OFFICER CELLI: I think it would be Mr. Wilson's Exhibit as 70 --

MR. WHEATLAND: Oh, okay. That would be fine.

HEARING OFFICER CELLI: -- at this time. If you offered it, it would be 705, I believe.

MR. WILSON: Correct. But explain the stipulation. It would be accepted by Cal Pilots on stipulation; could you explain that one more time?

HEARING OFFICER CELLI: It just -- what it means is this: That when we accept an exhibit, it doesn't mean we accept it as true. So when we put in your exhibits, we don't accept them as -- on face value and say that's a fact etched in stone. What we do is we receive the evidence and weigh it later.

All you're stipulating to would be the admissibility of the evidence, and then in your briefs later when you say, even as mentioned in, you know,

Mr. Yurtis's document, blah, blah, blah, then we've got something to refer to as you're writing your brief, you're making your argument.

MR. WILSON: Cal Pilots would agree to that. So --

HEARING OFFICER CELLI: But we --

MR. WILSON: And so would that be Cal Pilots's 705, or would that be --

HEARING OFFICER CELLI: It would be 705.

We're pretty late in the game here, folks. The Committee's not enthusiastic about receiving late documents.

MR. SARVEY: I would object.

HEARING OFFICER CELLI: So there's an objection by Mr. Sarvey.

Go ahead.

MR. SARVEY: First of all, I would like to review it. We don't have -- if he has 12 copies here, we could take a quick look at it; but without -- I mean, when was this particular testimony offered?

HEARING OFFICER CELLI: Well, it just was offered right now.

I don't want you get into a voir dire on this right now.

MR. SARVEY: Okay.

HEARING OFFICER CELLI: I just am checking on the stipulation.

MR. SARVEY: I'm objecting because it wasn't prefiled, and we don't have a copy, and we haven't reviewed it.

HEARING OFFICER CELLI: Okay. So there's an objection.

You're not going to be able to get it in by stipulation.

MR. WILSON: Okay. So then to confirm, it's not going to be entered as Exhibit 705.

HEARING OFFICER CELLI: Right. But, you know, you might do something like ask what is your opinion about "X" and what is the basis of your opinion, and then he can explain it all, whatever was written in that document on the record. And then you've --

MR. WILSON: Without seeing it, I'm familiar with what it says, so --

(Comment by person beyond range of microphone.)

HEARING OFFICER CELLI: I'm sorry, I didn't even hear your question, Mr. Wilson.

MR. SIMPSON: I'm sorry, can I ask for a point of order?

Isn't it the applicant's witness who just offered --

HEARING OFFICER CELLI: No, this is on -- it's cross-examination on Mr. Wilson. Mr. Wilson stopped and asked to put something in. We looked to see if there was going to be a stipulation; there isn't. So --

MR. WILSON: Yes, Cal Pilots will --

(Comment beyond range of microphone.)

MR. WILSON: Okay. So could you summarize -- well, first of all, let's talk about the document --

HEARING OFFICER CELLI: Let me ask you this, Mr. Wilson: What is the relevance? What is it you're trying to prove here? What is it you want to show through this document?

MR. WILSON: Let me ask the question first.

HEARING OFFICER CELLI: Okay.

MR. WILSON: Mr. Yurtis, in this document that you have held up, did you author the document, or is it a document that you have copied, referred to on FAA TERPS, or is it just something that you've authored and you're offering it for people to read? And do you show technical references based on what you said?

MR. YURTIS: Well, first of all, I didn't hold the document up, I presented it to Mariposa Energy in one of my reports.

MR. WILSON: You just held it up when you were talking.

MR. YURTIS: I thought you meant held it up from the Committee.

MR. WILSON: Okay.

MR. YURTIS: Okay. Held up this way.

MR. WILSON: Yes.

MR. YURTIS: So again, ask me that question. I'm sorry.

HEARING OFFICER CELLI: Ask one question at a time. That last question was four questions.

MR. WILSON: You held up a document, and the document refers to TERPS, and it refers to the three-tenths of a nautical mile off course, total six-tenths of a mile off course. You held up that -- did you author the paper?

MR. YURTIS: Yes.

MR. WILSON: Does it have all the references and FAA references to TERPS and how the dimensions and so on, or is it just a paper that you wrote with no references?

MR. YURTIS: The paper references the appropriate provisions of FAR 77 and FAR -- well, FAR 77, the U.S. Standard for Terminal Instrument Procedures, and also FAA Advisory Circular 150, slant, 5300-13, which is airport design.

MR. WILSON: All right. Thank you.

So if we could start over, Cal Pilots would

accept that as evidence and as our Exhibit 705. I would like to give other intervenors the opportunity to --

HEARING OFFICER CELLI: They're going to need to review it and take a look at it.

So what I'm going to -- I'm going to ask Mr. Wheatland, do you have multiple copies of this document?

MR. WHEATLAND: Yes, we do.

HEARING OFFICER CELLI: If you could have one of your folks pass them around to the intervenors, maybe the intervenors can take a look at this while we're speaking, maybe come to some resolution in terms of a stipulation if it's acceptable to all the parties.

In the meanwhile, while that's being determined, Mr. Wilson, let's get on with the cross-examination, please.

MR. WILSON: I would like to make a reference to --

HEARING OFFICER CELLI: This is marked for identification at this time as Exhibit 705. Exhibit 705 is a document that's stapled together and is 13 pages long entitled "Aeronautical Impacts of the Mariposa Energy Plant." It is not received into evidence yet. We're marking it for identification as Exhibit 705, which means that when we refer to this document, you can call it

Exhibit 705. And then later, if you can perhaps get a stipulation from all of the parties, we will entertain a motion as to whether we'll receive it into evidence. I hope I made that clear.

(Whereupon, Cal Pilots Exhibit 705 was marked for identification.)

MR. WILSON: This concludes my -- my cross. Cal Pilots. But I think I might have one more question. Can I reserve if other people ask questions that I might have one more question?

HEARING OFFICER CELLI: Is that really one more question, Mr. Wilson?

MR. WILSON: Yes.

HEARING OFFICER CELLI: Okay. Because we've seen demonstrated up until now that when people want one more question, it has subparts, except for Mr. Groover who did an awesome job last night of asking one more question.

So with that, I'm going to hold the motion -- there is no motion pending, but we will take your motion later on, Exhibit 705.

I'd like to get started with the other intervenors' cross. And the way I'm going to proceed, ladies and gentlemen, is I'm going to -- staff has already finished their cross. Mr. Wilson we may allow to have one more question. He's obviously the lead aviation person.

I'm going to go from Sarvey to Simpson, from my left to your right.

I'm going to ask you, please, intervenors, we need to make up for some lost time. So I'm going to ask you to not duplicate questions that others have asked. Let's get some new information, get the information you need, and then let's move on.

So with that, Mr. Sarvey, please, cross-examination.

CROSS-EXAMINATION

MR. SARVEY: Is this the first time any of the experts have provided testimony on plume effects on aircraft? Have any of you provided testimony before on this issue? If you can just raise your hand.

HEARING OFFICER CELLI: Let the record reflect -- would you raise your hand if you've provided testimony on plume effects?

MR. SARVEY: On aircraft.

HEARING OFFICER CELLI: On aircraft before.

I have one hand in the air. Two. Okay.

So the hands in the air were Henry Shiu and Mr. Hess. And now Mr. Moss as well. So three.

So take it from there, Mr. Sarvey.

MR. SARVEY: Did any of the experts here testify in the East Shore proceeding?

HEARING OFFICER CELLI: I'm sorry, say again.

MR. SARVEY: Did any of the experts here testify in the East Shore proceeding?

HEARING OFFICER CELLI: By a show of hands.

MR. SARVEY: Power plant proceeding.

HEARING OFFICER CELLI: Has anyone who's on the panel testified in the East Shore power plant proceeding?

No hands.

MR. SARVEY: Does your plume simulation model demonstrate the effects of a thermal plume on an ultralight plane?

HEARING OFFICER CELLI: Whoever that question should go to.

State your name.

MR. SHIU: This is Henry Shiu.

The analysis that we've submitted so far doesn't include -- well, it includes some analysis of ultralights going through the plume, yes.

MR. SARVEY: Does your plume simulation model demonstrate the effects of a glider going through the thermal plume?

MR. SHIU: Yes.

Henry Shiu again.

MR. SARVEY: How many of the witnesses here are actually pilots?

HEARING OFFICER CELLI: Show of hands.

And this was asked and answered by the way.

But we'll let the record reflect that --

MR. SARVEY: Okay. We've got it on the record then.

Have any of the pilots flown over a thermal plume from an LM6000 turbine?

HEARING OFFICER CELLI: The answer would be -- is there anyone who's flown over an LM6000 --

MR. MOSS: Douglas Moss.

Yes, we have.

MR. SARVEY: You've flown over a plume of an LM6000?

MR. MOSS: Yes, we have.

MR. SARVEY: Okay.

Have any of the pilots here flown out of the Byron Airport?

MR. MOSS: Yes, we have.

MR. SARVEY: Thank you.

To your knowledge is there any other NOTAM related to the Byron Airport?

MR. MOSS: Douglas Moss.

We're checking the status right now.

(Conversation beyond range of microphone.)

MR. MOSS: No, we're not familiar with any

current NOTAMs right now.

MR. SARVEY: Okay.

Has any of the pilots flown over a GE Frame 7 turbine?

MR. MOSS: I'm sorry, I didn't catch the last part of that.

MR. SARVEY: Have any of the pilots here flown over a GE Frame 7 turbine?

MR. MOSS: We have several pilots here. We have conducted flight tests over various plumes. We're not familiar with the exact characteristics of the generating facility per se. You'll have to look at the rest of the reports and other surrounding documents, but we do have -- we do have a report describing the effects of -- on aircraft and aircraft responses over plumes.

In addition to the report, we also have a video illustrating graphically visually those same effects.

MR. SARVEY: Is that a video that you have here today?

MR. MOSS: Yes, it is.

MR. SARVEY: Okay.

Between the -- has anybody here simulated the plume of the East Altamont Energy Center?

MR. MOSS: I'll have to ask the CH2MHill if you have that information.

MR. SOLBERG: This is Andy Solberg.

I'm not aware that we have on Altamont, a simulation.

MR. SARVEY: Between the East Altamont Energy Center and the MEP, what percentage of the air space is affected or would be limited by these two power projects presumably through a NOTAM?

MR. YURTIS: Your question has an assumption in there that the East Altamont plant is approved. But the East Altamont plant's determining of no hazard expired over eight years ago, and so from the FAA standpoint, the East Altamont plant does not exist. The only pending construction right now from an FAA standpoint is the MEP plant. So your assumption that brings into question the effect of plumes, one with East Altamont and one with MEP, is without basis.

MR. SARVEY: So it hasn't been analyzed basically. That's all I'm asking, whether you consider it has basis or not.

MR. YURTIS: We haven't analyzed it against a non-existent facility.

MR. SARVEY: Thank you. That's all I needed.

Have you analyzed whether any of the other energy infrastructure in the area impacts flight patterns?

HEARING OFFICER CELLI: That's rather broad. Are

you talking about wind turbines?

MR. SARVEY: I'm talking about the water infrastructure, the pressure station, the transmission lines, et cetera, et cetera.

HEARING OFFICER CELLI: Well, if you know; if you can answer that, please.

MR. SARVEY: Say no, you say no.

MR. MOSS: Yeah. Could you restate the question, please?

MR. SARVEY: Have any of you analyzed whether any of the other energy infrastructure in this area, and that would be power lines, the Byron cogen, the -- you know, any obstacles in this area, have you analyzed the other energy infrastructure in this area for impacts to flight patterns?

MR. MOSS: Douglas Moss.

To the best of our recollection, none of the other energy-generation facilities in the area have any obstructions that impact aviation.

MR. SARVEY: As a practical matter for you pilots, does a pilot always review all the NOTAMs before they fly in and out of an airport or around an airport?

MR. MOSS: Douglas Moss.

In general, a pilot is required to review all available information, which would logically include

applicable NOTAMs.

MR. SARVEY: But as a practical matter, in your experience as an aviation expert, do they actually do that?

MR. MOSS: Douglas Moss.

In my experience, it is -- if a pilot is familiar with the airport, he flies in and out of the airport frequently, oftentimes he may not check the specific NOTAMs on every particular flight, but he is -- he is looking and being made aware of the pertinent changes, the pertinent NOTAMs that are in effect at the time.

MR. SARVEY: That's all I have, Mr. Celli.

HEARING OFFICER CELLI: Thank you, Mr. Sarvey.

Mountain House. Now, Mountain House probably has very few, maybe --

MR. GROOVER: I can get through in just a couple minutes.

HEARING OFFICER CELLI: Okay.

CROSS-EXAMINATION

MR. GROOVER: For the reference, I'm going to ask some technical information. I'm a registered professional engineer in the State of California, although I'm a civil engineer, so the mechanical engineers in here probably don't recognize my skill, especially the couple Ph.D.s here, I'm sure they wouldn't let me have their

Tinker Toys; but having said that, Mr. Moss, you testified that an AIM is general guidance and general standards. Is that correct?

MR. MOSS: Douglas Moss.

Yes, that is true.

MR. GROOVER: Okay. And you said that if there was an AIM that described a plume in an area, you would not fly through the plume unless you had justification, without justification; is that correct?

MR. MOSS: Douglas Moss.

That is correct.

MR. GROOVER: Okay. I'm going to switch to one of the mechanical engineers that probably doesn't have a Ph.D., I'm guessing. Mr. Solberg, rather than doing theoretical stuff, you've actually done some design work I'm assuming.

MR. SOLBERG: That's correct.

MR. GROOVER: Okay. Generally speaking from a civil engineering standpoint, we have general standards that we complied with when we do our designs, and each time what I like to see, and actually sometimes actually the first design guideline is none of these guidelines supersedes sound engineering judgment. Would you consider that a reasonable engineering concept?

MR. SOLBERG: Yes.

MR. GROOVER: Thank you. Okay. I'm actually going to get to the pertinent questions now that I've set that up.

Mr. Olson, from the description of your job, I've got to say, that sounds pretty cool, especially for a young man; it seems like what you do is pretty fun.

You are a professional pilot, you test fly, and you also said that in an AIM-noticed plume, you would not fly through that plume without justification; is that correct?

MR. OLSON: That is correct.

MR. GROOVER: Okay. Do you remember your first solo flight?

MR. OLSON: I do.

MR. GROOVER: It was pretty exciting, wasn't it?

MR. OLSON: That is correct.

MR. GROOVER: How many flights after that did you have with your instructor before your instructor kicked you loose to just take the plane out and do -- you know, do some flying on your own?

MR. OLSON: After my first solo?

MR. GROOVER: Just estimate, yeah. You don't have to give me an exact number.

After your first solo, how long before the instructor said, you know, I'll let you take the plane up?

MR. OLSON: Okay. I'd like to answer this question as a certified flight instructor.

MR. GROOVER: That's fine.

MR. OLSON: I currently -- I currently have my own students. And as far as experience is concerned, there are requirements to meet the basic solo requirements for the local airport area. And then beyond that, you have to meet other requirements prior to doing cross-countries.

HEARING OFFICER CELLI: I'm sorry, I'm getting a bit of echo.

MR. GROOVER: Okay. So --

HEARING OFFICER CELLI: Everyone stop. We can have one person talking at a time. There was a concern raised that people couldn't hear because of -- Mr. Olson, we've been having audio problems in this room. People are hearing a lot of echo. So you need to find of finesse your mic so that you can hear and they can hear you, and speak a little slower if you would.

Go ahead. If you could give that answer.

MR. GROOVER: Did you answer?

HEARING OFFICER CELLI: The question was how long before they're cut loose to fly on their own.

MR. OLSON: Right. So initially you will do your solo flights at the airport. And then after you meet

further requirements, you're allowed to leave the local area and do cross-countries after you have completed cross-countries with your instructor.

MR. GROOVER: Okay. When I soloed, my instructor kicked me loose, said, you can come to the airport and take the plane out. You know, I probably had three or more -- four more flights with him before he kicked me loose. He said I could come to the airport and fly the plane. I had to come to him and go up with him at various intervals after that, but pretty much three or four flights after a solo he gave me permission to come to the airport and take the plane. Is that reasonable?

That was like 25 years ago. Have things changed since then? You know, competency for soloing, and then a few more flights with the instructor, and the guy can go up?

Just your opinion. I'm not trying to sandbag you. Just, you know, yes or no.

MR. OLSON: In my opinion, when a student is able to solo themselves, they're allowed to operate at the local area as well as a local maneuvering area where you're practicing maneuvering alone; and then once a student has met the requirements and done cross-countries with the instructor, they're allowed to leave the local area.

MR. GROOVER: Okay. Fine.

MR. OLSON: Beyond 25 nautical miles.

MR. GROOVER: Okay. Fine. And basically that's my remembrance as well.

Now, in your professional capability now, if you look back to the time when you were first kicked loose, your instructor told you you can come out and take the plane, do you see a quality of your ability to make judgments about flying, do you see a substantial difference in your quality -- or your ability to make judgments now as compared to the first time you were kicked loose on the plane?

MR. OLSON: That is correct. Aeronautical decision-making is something you develop with experience and time, and that's definitely something that builds as you gather more flight hours.

MR. GROOVER: Okay. So as a civil engineer, you don't have to get in between me and mechanicals; you heard my questions and Mr. Solberg's answers about sound engineering judgment being used for general guidelines. Now, if I say I have 25 years of experience as a civil engineer and I can exercise sound engineering judgment, but if I hired a kid right out of college, I would be concerned about their ability to use sound engineering judgment and that I would want them to not accept these

standards as general guidelines but to accept these standards as specific guidelines -- I believe Mr. Solberg and I didn't specifically have that discussion, but it was implied.

With your now greater ability as a pilot, would you understand that your ability when you were first kicked loose as an unlicensed pilot but having the capability to fly locally, that you probably wouldn't take -- should not have taken general guidelines and used judgment on whether you should have -- violate those guidelines or not? So the concept that without justification may have greater ramifications to a young pilot that doesn't have the understanding that you have now, would you agree with that understanding that I'm projecting?

MR. WHEATLAND: Do you understand the question?

MR. OLSON: Can you be specific with your question?

MR. GROOVER: I'm sorry?

MR. OLSON: Can you be specific with your question? I don't understand.

MR. GROOVER: Yeah. Would you -- would you recommend to a kid that you haven't signed off on yet who's learning how to fly that he ignore any AIM, to use any judgment that would ignore any AIM?

MR. OLSON: No, I would not recommend that they ignore judgment. I do introduce the AIM as recommended procedures, and I do state that is not a federal aviation regulation, it's something that is recommended, it is not required.

MR. GROOVER: But for a young pilot without the experience that you have, it would be --

MR. OLSON: It would make no difference to any student I was instructing; I would teach it the same way.

MR. GROOVER: Okay. Thank you.

HEARING OFFICER CELLI: Thank you.

Rajesh Dighe, do you have any questions of these witnesses?

MR. DIGHE: Yes.

HEARING OFFICER CELLI: Please proceed.

CROSS-EXAMINATION

MR. DIGHE: So what are the FAA guidelines to a --

MR. OLSON: I'm sorry, could you repeat the question?

HEARING OFFICER CELLI: You need to speak directly into the microphone, please.

MR. DIGHE: What are the FAA guidelines to avoid accidents over the non-towered Byron Airport?

MR. WHEATLAND: Objection; vague. Mr. Dighe is

asking general discovery questions rather than cross-examination, and I would like to hear questions that are --

HEARING OFFICER CELLI: And I hardly -- you trailed off at the end. I need you to be right on your microphone. So I could barely hear what the question was.

MR. DIGHE: I'm trying to get to the FAA guidelines to avoid accidents over the non-towered Byron Airport.

MR. MOSS: Douglas Moss.

HEARING OFFICER CELLI: Wait a minute, please.

Okay. So and you're asking whether those exist or what they are?

MR. DIGHE: Yes. What would be the top critical ones, according to them, for such a non-towered Byron Airport?

HEARING OFFICER CELLI: Does that -- can you operate with that set of information?

MR. MOSS: I think so.

HEARING OFFICER CELLI: Go ahead.

MR. MOSS: Douglas Moss.

The FAA publishes the Aeronautical Information Manual, and in the manual they have illustrations, diagrams of appropriate ways to enter and exit and accomplish flight in the traffic patterns, which is

generally considered as general guidance for how to -- pilots to use to avoid accidents.

And let me hand the microphone off to Barbara Lichman.

MR. DIGHE: I just want to emphasize that I'm asking specifically for the non-towered Byron Airport and looking at the surrounding characteristics of that airport, what do you think are the top, maybe five critical ones?

MR. YURTIS: Five -- this is Barry Yurtis.

Five critical elements for avoiding an accident at a non-towered airport?

MR. DIGHE: Non-towered Byron Airport.

MR. YURTIS: Non-towered what?

MR. DIGHE: Byron Airport.

MR. YURTIS: Byron.

MR. DIGHE: Yes.

MR. WHEATLAND: I'm going to object to the question. This is general discovery.

HEARING OFFICER CELLI: And I'm going to sustain the objection.

And I want to bring us all back, folks. We're trying to determine what the impacts the MEP will have, the MEP being the Mariposa Energy Project, would have on this airport. And we have no jurisdiction over whether

people behave appropriately in the air, whether they follow the five top guidelines, et cetera. So we need to --

MR. DIGHE: I can skip that. I'll kind of rephrase it in a different way.

HEARING OFFICER CELLI: Yes, but let's tie it into the project. We need to --

MR. DIGHE: I'll tie it to MEP.

HEARING OFFICER CELLI: Thanks.

MR. DIGHE: So now that MEP is going to be close to the Byron Airport, what is the risk to the gliders and small airplanes landing into the Byron Airport? What are the big five risks maybe?

HEARING OFFICER CELLI: What is the risk to the small ultralights and gliders is the question.

MR. DIGHE: Which don't have transponders.

HEARING OFFICER CELLI: If you know.

MR. SHIU: Just for clarification -- henry Shiu.

Just for clarification, the question was what are the risks to small aircraft, ultralights, et cetera, flying over the Byron Airport?

MR. DIGHE: Yes.

MR. SHIU: Okay. Based on our flight dynamics modeling, the risks are minimal.

MR. SINGH: Excuse me, I didn't hear it. Can you

please repeat it again?

HEARING OFFICER CELLI: And neither did we, Mr. Shiu. I'm sorry, it's the mic and the acoustics.

MR. SHIU: I'll talk slow. Sorry.

Based on our flight dynamics modeling, the risk is low, minimal.

MR. MOSS: Douglas Moss.

And in addition to the flight dynamics modeling, the actual flight test indicated that the hazard and the risk is minimal.

MR. DIGHE: I just heard in the previous conversation that the gliders were not modeled right. Did you take into consideration when you did the modeling of the traffic, the gliders and small airplanes with non-transponders? Because I heard that the data tracks did not include that.

So again, my question, when you say the risks are minimum, are minimal, how did you come to that? How did you come to that conclusion?

MR. MOSS: Douglas Moss.

When we did the assessment, we did not assess risk based upon whether or not an aircraft had a transponder. We did the risk assessment based upon the assumption that the aircraft or a glider flew through the plume either directly over the plume or slightly offset

from the plume. Our analysis did not include impacts to aircraft with or without transponders.

MR. DIGHE: Kind of a related question.

So when you did your analysis of traffic activity over the Byron Airport, can you tell in percentage how many were gliders, how many were ultralight, small engine, large jet type? What is the percentage categorization of the number of these planes flying into the Byron Airport?

MR. YURTIS: This is Barry Yurtis.

I don't have percentages for you, but I believe if you'll consult with RNAV, it will indicate the number of aircraft that are based there, and I believe it delineates between so many gliders and so many single engine. I don't have those numbers at the forefront right now.

MR. DIGHE: Any rough estimate on the count, how many gliders fly or how many ultralight fly yearly into this airport?

MR. YURTIS: I can't remember.

MR. DIGHE: The next one --

MR. SHIU: Actually, I just want to slip in here. This is Henry Shiu.

Just for clarification, the analysis that we conducted, sent to engineering, doesn't take into account the likelihood of aircraft overflying the plume. We just

assume it does, and then we see what happens.

MR. DIGHE: Fair enough.

In your studies did you actually consider the growth of the Byron Airport and how does it affect landing and take off?

MR. YURTIS: This is Barry Yurtis.

In regard -- the question related to have we considered the growth of the Byron Airport.

When the FAA did their aeronautical study in conjunction with the provisions of FAR Part 77, it is required that they -- they do their study in consideration of any planned improvements to that airport that are contained either in the airport --

MR. SINGH: They are reading --

HEARING OFFICER CELLI: Do you have an objection?

MR. SINGH: My objection is they are reading the electronics and somebody sending a message, and they're reading it. This is not permissible.

HEARING OFFICER CELLI: Well, let's just ask what is that tablet that you're passing back and forth, witnesses? Mr. Moss? Are you playing Etch-A-Sketch when we're -- what is that?

MR. MOSS: Our apologies.

This is Douglas Moss.

I was just being shown by my colleague here that

there is -- we do have information from RNAV.com on the traffic count at the Byron Airport. And that's been a question that's been asked by the intervenors. And we just could not have the numerical information off the top of our heads, so --

HEARING OFFICER CELLI: Well, here's the thing: When these witnesses -- when these intervenors are asking you questions, they're basing it on your expertise, what you know now. If you have subsequently discovered information which you didn't have when you made your opinion, we don't want that now. So let's just go with what you know, and let's turn off the computers, and quit passing things back and forth. And, please, let's just answer the questions from your expertise and things will go much more smoothly.

MR. MOSS: Okay.

HEARING OFFICER CELLI: Thank you.

Thank you, Mr. Singh.

Where were we?

(Comment from beyond range of microphone.)

HEARING OFFICER CELLI: Let's just put that aside and move on.

MR. WHEATLAND: And while we're at this moment, I do have a question. Mr. Dighe did not indicate any estimated time for cross on this issue in his prehearing

conference statement.

HEARING OFFICER CELLI: I understand.

How many more questions do you have, Mr. Dighe?

Three more questions?

MR. DIGHE: I try to reduce it as much as possible.

HEARING OFFICER CELLI: Let's keep it as three questions, and let's get moving here.

MR. DIGHE: I'll try my best.

HEARING OFFICER CELLI: Thank you.

MR. YURTIS: This is Barry Yurtis.

I'd like to finish my answer in regards to the airport, considering airport expansion.

What I was saying is when the FAA conducted their aeronautical study in accordance with the provisions of Part 77, they are required to consider any planned improvements to that airport as existing at that time. And those planned improvements, if they're contained either in the airport layout plan or in the airport master plan, they are considered by the FAA as to exist at the time of their study.

At that time Byron had indicated that they were planning runway extensions both from Runway 523 and 3012.

MR. SIMPSON: I'm sorry, could you speak a little farther from the mic?

MR. YURTIS: 3012.

Is that better?

And so all the analysis that the FAA did in conducting their aeronautical study in which they came to the determination that the MEP was not a hazard to air navigation was based upon the future expansion plans of the airport as published in their airport master plan.

MR. DIGHE: Thank you.

Next question is around accidents statistics compared to towered and non-towered airport and now that MEP is going to be close to this non-towered airport. So the question in two parts, on average you can tell me on a towered airport and a non-towered airport, what are the issue of the number of accidents?

MR. YURTIS: I don't have that data in front of me.

MR. DIGHE: Okay.

HEARING OFFICER CELLI: Let me ask you this: Do you have any knowledge as to whether there's a higher incidence of risk of accidents in non-towered airports than towered airports?

MR. YURTIS: Well, let me preface that by saying that when my last position with the FAA as the western terminal area safety manager, my job was to investigate accidents from the air traffic perspective. And every day

I would see accidents, multiple accidents of general aviation aircraft, air carriers, everything. And there doesn't seem to be a correlation between the accident taking place at a towered airport versus a non-towered airport. Accidents occur based upon aircraft structural issues or pilot issues. It has nothing to do with whether there's a tower at the airport or not.

So specifically I can't tell you, I don't think -- first of all, there's no correlation.

HEARING OFFICER CELLI: Thank you. That's very clear.

Go ahead. One more, Mr. Dighe, if you have --

MR. DIGHE: I have two more, please.

HEARING OFFICER CELLI: Quickly.

MR. DIGHE: And now the second part of my first question is now that MEP is going to be close by to a non-towered airport, according to your expertise, does the risk -- do you feel the risk grew for accidents for gliders and small planes?

MR. YURTIS: Are you asking if there's a greater risk for gliders?

MR. DIGHE: Yes. And please justify.

MR. YURTIS: I'll pass that off to Mr. Shiu.

HEARING OFFICER CELLI: The question is, Mr. Dighe, I don't want to --

MR. DIGHE: So now that since Byron a non-towered airport and now MEP is going to be close to this, so now we have the plumes, I'm going to go into that, according to your expertise, is there a risk for these planes while take off or landing, and can you please justify why do you feel the rate that there is a risk of accident?

HEARING OFFICER CELLI: Is there a greater risk for the lighter aircraft?

MR. DIGHE: Yes, specifically yes, the lighter, the gliders and the lighter aircrafts.

MR. MOSS: This is Douglas Moss.

We are not -- I am not aware of any increased level of risk based upon the category of airport, whether it's light or glider.

And I'll pass the microphone to Mr. Shiu. Computational analysis, looked at the same issue.

HEARING OFFICER CELLI: Speak up.

MR. SHIU: This is Henry Shiu.

I would say that the risks for gliders are likely to be different for that of powered aircraft in our analyses, were correspondingly different to, again, our findings were that the risks were minimal.

MR. DIGHE: Thank you.

More questions.

HEARING OFFICER CELLI: That was more questions.

Come on, let's go. Wrap it up.

MR. DIGHE: So did you model the flight patterns between Livermore Airport and Byron Airport? And specifically I'm asking is because now MEP is in the middle. And if yes, can you talk about it; if no, why wasn't that modeled?

MR. MOSS: Douglas Moss.

I'm sorry, what was the difference in the question? The difference between the Byron Airport model and what else?

MR. DIGHE: No, I was -- the flight patterns and the activity going on, flights flying between Livermore Airport to the Byron Airport. So basically Livermore is in the bay area and probably -- maybe the flight going into the Byron Airport and the flights going out from Byron Airport, was this activity studied? If yes, please talk about it; and if no, why wasn't that activity studied?

MR. MOSS: Douglas Moss.

We looked at the -- our analysis was conducted primarily with the airport configuration and the standard entry-departure patterns for that airport. We looked at other outlying airports. And, in fact, the flight track data we have takes into account entries to the airport from all sources, not any particular source such as

Livermore.

MR. SHIU: This is Henry Shiu.

I kind of already said this earlier, but our analysis doesn't try to correlate the likelihood of overflight with risk. We just assume the plane flies over the plant and then model the effects from there.

MR. DIGHE: My last question.

Is the airport commonly used by training pilots? Was that study done? Is Byron Airport being used by training pilots?

MR. MOSS: This is Douglas Moss.

We made the assumption that the airport is used by training pilots.

HEARING OFFICER CELLI: Thank you.

MR. DIGHE: Thank you.

HEARING OFFICER CELLI: Mr. Singh, did you have any questions of these witnesses?

MR. SINGH: Yes. I think --

HEARING OFFICER CELLI: Please proceed.

MR. SINGH: I think some of the questions Dighe has already covered, so I'm not going to touch on that.

HEARING OFFICER CELLI: You're not coming through. Can you move it -- yeah, move it right in front of you, and speak right down the barrel of that microphone.

CROSS-EXAMINATION

MR. SINGH: So as my understanding is that basic assumption and hypothesis was taken that this is a training airport, right? The majority of the activities happen like people basically train themselves to fly in and out, or people, they do the flights leisurely.

So what percentage of the commercial flights land and take off as compared to non-commercial? And non-commercial categories are people that --

HEARING OFFICER CELLI: Well, let him answer that question first, okay?

If you know.

MR. MOSS: Douglas Moss.

I'm sorry, I have to ask you to repeat the question.

HEARING OFFICER CELLI: What is the relationship between commercial and non-commercial flights coming in and out of Byron Airport, if you know?

MR. MOSS: Douglas Moss.

First of all, we need for you to define what "commercial operations" are. And from a general perspective, we're not aware of any commercial operation out of Byron Airport.

MR. SINGH: Okay. So most of the flights are non-commercial.

MR. MOSS: It is our assumption, our belief that most -- the majority of the flights are non-commercial, correct.

MR. SINGH: Okay. Great. So non-commercial categories are people, those who are trying to learn the flights, how to become a pilot, and people that basically use these planes, light-craft airplanes, or Cessna just for leisure or a hobby, and the majority of them I would say are those people, right?

MR. MOSS: Douglas Moss.

It is our belief that the majority of the operations are pilots conducting leisure flying, that's correct.

MR. SINGH: Great. So I'll pass on the question to Mr. Olson, since he's a young pilot.

When you have been learning flights, how to learn flying aircraft or plane or glider or Cessna, so when you go to angle of attack and you don't make an angle of attack, how many times you have to take a U-turn to again come and then land on the airport?

MR. OLSON: Please repeat your question. That didn't make sense.

HEARING OFFICER CELLI: If I may, let me just try.

He wants to know how many times as you're trying

to land, if you don't get it right, how many times do you go make a U-turn and go back and try it again?

MR. OLSON: I believe if you're asking related to how often would you do patterns as you're trying to come back to land, if you did a missed approach, typically while you're training, most -- most students will land on the first attempt, or, if necessary, go around and try one more time at the local airport.

MR. SINGH: Okay. So basically because I was doing flying, you know, and when -- in first week -- not in first week -- in first month, when I was approaching the flight, right, and when I was trying to land, I missed five times. I may be a bad learner, basically. And I had to go around and make it 360 and again try again.

Sometime again if I'm not able to make my approach, again I had to throttle it and take back, again, make, and again I used to get a stick, you know, in the mind, what the heck are you doing from my instructor.

So there's a high probability that people will miss, the people that are learning how to land, and they basically have to make the U-turns. Not 360 turns, right, there's a high probability.

MR. OLSON: I do not agree that you'll be making 360 degree turns. You --

MR. SINGH: You have to again come back, and you

may not take 360-degree turn, how you could back, again, you try to land, you have to make a 360-turn, right?

MR. OLSON: Negative. You would be doing a standard aircraft pattern. And as you're learning to fly, one thing that you learn is that you follow the normal aircraft patterns and procedures at the local airport. And the evaluation that we have seen here shows a local aircraft patterns, and that's what the aircraft would be flying.

MR. SINGH: So this is a track, I'm landing here, I do not make my approach, I then go back and again I try to make another attempt; is that correct?

MR. OLSON: That is correct.

MR. SINGH: Called 360-degree turn?

MR. OLSON: We call that a traffic pattern.

MR. SINGH: Traffic pattern. And that's 360 degree, right? Or it could be traffic pattern or in a square or in a rectangle.

MR. OLSON: It is a rectangular course around the runway centerline.

MR. SINGH: Right. So now, what is the pattern for the rectangle and the square around when somebody miss his approach? Does it -- will it go above the power plant? Has that study been conducted?

HEARING OFFICER CELLI: Go ahead.

MR. SINGH: As a student.

MR. MOSS: This is Douglas Moss.

Your question refers to a pilot accomplishing a go-around and then doing a traffic pattern to do another approach and landing.

We have -- we have looked at the patterns at the airport. Generally the downwind is less than a quarter mile away from the runway, and the final approach is flown probably about a half mile out; whereas the MEP location is 2.6 or more miles from the airport, and there's no traffic pattern that overflies or even comes close to the MEP location.

And let me hand the mic over to Mr. Yurtis for his comments.

MR. YURTIS: Barry Yurtis.

When the FAA did their aeronautical study, they did a study of the location of the MEP in comparison with the airport. The MEP is not contained within traffic pattern air space as defined by the FAA, it is an en route air space, not traffic pattern air space.

HEARING OFFICER CELLI: Next question.

MR. SINGH: I have a question.

Since this modeling was not entered into exhibit, right? So we're not going to ask those questions on the modeling; am I correct?

HEARING OFFICER CELLI: On the modeling?

MR. SINGH: Yeah, the modeling done by Shiu and --

HEARING OFFICER CELLI: We have -- so far I'm not sure whether it's even relevant or coming in yet.

MR. WHEATLAND: Yes, the modeling is part of the applicant's direct and rebuttal testimony and will be part of the exhibits we'll be moving into evidence. We have previously identified those and distributed those to the parties as part of our direct testimony.

HEARING OFFICER CELLI: Okay. And is this marked as an exhibit?

MR. WHEATLAND: It's -- yes, it is. It's included within the applicant's direct testimony and is marked as an exhibit.

HEARING OFFICER CELLI: Exhibit number? What exhibit number is this we're talking about?

The question I'm asking is do all the parties have this. Are we springing this on people now, or is this something everybody's had up till now?

MR. WHEATLAND: No, we -- the applicant has done modeling and simulations with respect to the effect of thermal plumes on aircraft for a wide range of aircraft. And all of that information is included in the applicant's direct testimony and is identified as part of its direct

testimony. None of that -- none of the -- these flight simulations is being introduced today.

HEARING OFFICER CELLI: Won't be used.

MR. WHEATLAND: That's what?

HEARING OFFICER CELLI: I'm sorry. You know something; there's the weirdest echo coming from one of you.

MR. WHEATLAND: The flight simulations that are being referenced here that were conducted by the applicant measuring the effect of thermal plumes in the theoretical sense upon a wide range of aircraft is part of our direct testimony and is part of the material that we previously served to the parties as our direct testimony.

HEARING OFFICER CELLI: Okay. So that -- what exhibit number was that direct testimony contained in?

MR. WHEATLAND: Can one of the panel help me? Do you know the -- is it 16?

It's Exhibit 16.

HEARING OFFICER CELLI: Thank you. That's all I wanted to know. I wanted to know that it was already something that all the parties had.

So I want to get back to Mr. Singh.

So your question is what is this thing that they want to put on, and apparently it's Exhibit 16.

MR. SINGH: Right. So the simulation that they

want to present today, which they are not going to, I believe, it is not part of the exhibit, right? The simulation model they was trying to show? That was not entered.

MR. WHEATLAND: I'm not sure what your question is.

The TERPS analysis that we contributed, Exhibit 705?

MR. SINGH: So I hear Mr. Shiu, he was planning to present some simulation, right? So that's simulation has been entered before in coming here with that simulation model here or not?

MR. WHEATLAND: Yes. The flight simulations that Mr. Shiu is testifying here today are part of the record. And I've just been corrected that my original statement was right, it is Exhibit 15, not 16. That's the applicant's -- staff's query set one, addenda to the CEC staff data request 52 and responses to Keith Freitas's e-mail at the ALUC.

All of this flight simulation information was presented to the Contra Costa ALUC, and the simulations were presented to them, we showed them the videos, we did the full presentation. And all of the supporting technical data that we presented to them is included in Exhibit 15.

HEARING OFFICER CELLI: Okay. Now, Mr. Singh, did you have a question?

MR. SINGH: Yes. The question is when these simulations were done and entered, now I would like to mathematical modeling, and the question goes back to Shiu.

What was the mathematical model that was used in this simulation pattern, and what software did you use?

HEARING OFFICER CELLI: There you go. Did you get the question?

MR. SHIU: Yes. I think the question was, what were -- Henry Shiu.

The question was what were the mathematical models that we used and what software did we use?

MR. SINGH: Right.

MR. SHIU: Well, there were a variety of analyses that we did, and we used different software and different methodologies for each one.

(Comment from beyond range of microphone.)

HEARING OFFICER CELLI: My apologies for these interruptions, but we're trying to make sure that all of this gets into the record, and so that's why I have to interrupt you from time to time.

MR. SHIU: Everyone is telling me to talk slower. I will. Sorry about that.

HEARING OFFICER CELLI: Go ahead, Mr. Shiu.

MR. SHIU: So there were a variety of analyses that were conducted and a variety of methodologies and software that were used. For the cockpit simulations, which include a pilot and loop, that was done with a Matlab model using Simulink.

MR. SINGH: Say that again. Matlab?

MR. SHIU: A Matlab model using Simulink.

MR. SINGH: Simulink, okay.

MR. SHIU: Simulink, yes, that's part of Matlab. And that was based on control theory and methodology, which is -- it's classical theory, it's well-established, published, and accepted in the industry.

MR. SINGH: Okay. What is the control theory that you used?

MR. SHIU: I'm sorry, say that again, please.

MR. SINGH: Control theory. Control theory related to your Matlab model simulation. There's a control theory that's being adopted in Matlab model simulation.

MR. SHIU: Yes, that's correct.

MR. SINGH: What is the name of that control theory?

MR. SHIU: I'm not sure I understand your question.

It's -- it's -- it's basic control theory. It's

first principles. So it's --

MR. SINGH: Say that again.

MR. SHIU: It's first principles control theory --

MR. SINGH: First principle.

MR. SHIU: -- which means that it goes back to the very basics of control theory.

MR. SINGH: Okay.

MR. SHIU: And that is the same theory that is used for the design and is actually integrated into the operation of aircraft.

MR. SINGH: Okay. So how many input vectors have you used in that control theory or Matlab simulation? How many input vectors were there?

MR. SHIU: Input vectors?

MR. SINGH: Input vectors.

MR. SHIU: Well, we get too far in depth, I'm going to turn this over to Dr. Hess, who actually performed that analysis.

But we included a numerical model of the plume that was provided to us by Andy Solberg of CH2MHill; and then an entire aircraft, all the stability derivatives were incorporated into it to model the response of that aircraft.

MR. SINGH: So can you name some of the input

vectors, please?

HEARING OFFICER CELLI: Mr. Singh, your question was how many data?

MR. SINGH: Yeah, how many data elements were there in -- when they conducted the simulation.

HEARING OFFICER CELLI: And I'm not sure you got an answer to that question. But is that something Dr. Hess would know?

MR. SHIU: Okay. Yeah, perhaps -- Ron, do you want to comment on that?

MR. HESS: Well, if we define inputs as inputs -- I'm sorry, Ron Hess -- inputs provided by pilot or pilot model, there were four: Aileron, rudder, elevator, and in the case of the helicopter we looked at collective inputs. I said four, I think I just mean three, because we left the -- for the fixed-wing aircraft, we left the throttle alone. So we had Aileron, rudder, and elevator. In the case of the helicopter, we upped it when had collective control. Those were their physical pilot inputs.

Now, when you're talking about atmospheric inputs, there are more. The integrated effect of the model plume over the aircraft was handled by techniques that I've been using for 40 years.

MR. SINGH: So I'm more interested in the speed and the angle of attack, those type of inputs.

MR. HESS: Those are not inputs, those are responses.

MR. SINGH: When you do the modeling, you have to consider the modeling. What is the angle of attack and what is the speed when you're entering and in the landing zone?

MR. HESS: The aircraft is initially trimmed; that is to say the moments and forces all sum to zero. At that point the plume provides a disturbance and the pilot reacts to the disturbance. Angle of attack and air speed is not an input per se, it is a response of the pilot-vehicle system. It's in there, there's angle of attack certainly, normal acceleration, roll attitude, pitch attitude, yaw rates.

MR. SINGH: Okay. So if any one of the input vectors, if we change, and it can -- definitely was conditioned to an acceptable condition, it can happen, right?

Let's say I ran my simulation and I found my simulation is totally off and there's a high level of danger happening; the flight may crash, right, in those situations. One of the input vector, if you change, do you think you can like come into the green signal, it says, this is dangerous, this is acceptable, this is yellow.

MR. HESS: Again, let me tell you what we did.

We assumed the aircraft was trimmed. It entered the plume. We allowed the pilot in the simulation or the pilot model to respond to the disturbances. And the disturbances were in all the variables you just alluded to: angle of attack, pitch attitude, roll attitude, yaw, yaw rate. We let the mathematical model tell us what would happen to the vehicle. Were there large control inputs by the pilot? Were there angles of attack approaching stall? We did not independently go in and say let's really jack up the angle of attack. That would be unrealistic. You don't do that in simulations.

MR. SINGH: Okay. So when we fly aircraft, what is the most difficult exercise we do in the air? What is the most difficult exercise we do in the air when we fly the aircraft or when we are learning the aircraft?

Maybe, Mr. Olson, can you tell me? You have been flying, right? What is the most difficult, riskiest exercise that you undergo to control your plane?

No whispers, please.

MR. MOSS: Douglas Moss.

I think your question refers to a student pilot learning how to fly. And in general, the most difficult task for a student pilot learning how to fly is landing the airplane primarily in the flare, short final and in

the flare, right before touchdown.

MR. SINGH: Okay. How about stalling the plane in the air? How is that in terms of difficulty, in terms of landing? Take off is easier than landing, right?

MR. MOSS: I'm sorry, what was the last part?

MR. SINGH: Take off the plane is easier than landing the plane; is that correct?

MR. MOSS: In general, taking off the airplane is easier than landing the airplane.

MR. SINGH: Okay. Let us say now in terms of the difficulty, stalling the plane in the air, is that more difficulty than landing?

MR. MOSS: Douglas Moss.

For the benefit of the panel, Mr. Singh is referring to stalling an airplane, which means, in general, the airplane is slowed down to a very low speed and has what they call an angle of attack, a very large angle of attack, which is the difference between the wing -- the core of the wing and the relative winds. So at low speed, in order to stay airborne, the airplane has to fly at a larger, higher angle. There is a specific angle; we call it the critical angle of attack.

When that angle of attack is exceeded, then there is a significant loss of lift, there may be a degradation in the handling qualities, and the nose would generally

pitch down. And the pilot must, you know, gain more air speed in order to fly.

MR. SINGH: That means that is the most difficult exercise to recover the plane when the nose dive down.

MR. MOSS: Well, let me continue.

When a student pilot learns how to fly an airplane, he needs to accomplish and learn how to do many tasks. One of the tasks is accomplishing the take off; another task is landing the airplane; and a third task, and there are many, but a third task would be practicing stalls.

And what a pilot does is he intentionally stalls the airplane. And the airplane for a very brief moment in time is less than fully controllable, but the pilot learns how to apply power, reduce back pressure, lower the nose, regain flying air speed, and then fly out of the stall. That's a maneuver that you practice as a student so you become good at it, comfortable at it, so if you were to ever encounter a stall in regular flying, you'd be comfortable and proficient in recovering from the stall.

And what Mr. Singh is referring to is practicing stalls as a student. The first time or that two that you do it, you're a little awkward, you don't know exactly to move the stick or how far to move it, and you might get a secondary stall; and after about three or four practices

of this, generally a student can recover the airplane without much difficulty.

Sir, does that answer your question?

MR. SINGH: Yeah.

So that means it's a difficult exercise in the air to do.

Now, the question is have you done the modeling that if somebody stalls a plane over the plume, have that modeling been done if somebody does the exercise in the air over the plume, over any -- any power plant?

MR. MOSS: Is that a question for Dr. Hess?

MR. SINGH: Yes.

MR. HESS: Well, it's a little difficult. Stalling over the plume --

MR. SINGH: Yes or no.

MR. HESS: -- would be --

MR. SINGH: Yes or no.

MR. HESS: -- I assume a result of the plume.

MR. SINGH: My question --

HEARING OFFICER CELLI: No, let the witness answer the question; and then if you need to, you can follow up.

Go ahead.

MR. HESS: It sounds like we're moving to the -- I don't want to put a question in your mouth -- to the

point is can the plume itself initiate a stall. Maybe that's not what I -- I wouldn't practice stalls at the low altitude that -- where the plume has any effect; and I think that's what Bruce was alluding to there.

When an aircraft that has been certified by the FAA finds an updraft, the nose will pitch down. It's called one of the fundamental concepts of static and dynamic stability. So the idea that flying in the plume will initiate a stall has not come out in any of our analyses or simulation.

MR. SINGH: Okay. So basically we have not conducted any simulation when the stall happens within the plume, right?

MR. HESS: None of our simulations have come close to the plume initiating a stall. Either the pilot has his or her hands off the controls, or if the pilot is actively controlling the vehicle.

HEARING OFFICER CELLI: So the answer is no.

MR. SINGH: I would like to ask for the model, the data, and assumptions being made, but I think it will take days if we start discussing on it. Is it possible we can get a copy of all those datas?

HEARING OFFICER CELLI: I'm sorry, I need you to speak directly into the mic, because I'm not -- I'm getting a lot of echo. It's hard to hear you.

MR. SINGH: I'm looking for the data that we use in modeling, the entire data, the input vectors and assumptions being made. So can that be sent over to us so that when we are doing the briefing we can add something there?

HEARING OFFICER CELLI: You know what, that would be a discovery request. And discovery is closed at this time. So you can make whatever objections you wish based upon whatever the state of the evidence is right now, but at this time we're not going to reopen discovery.

MR. SINGH: So we basically all agree that the majority of the planes, people they fly, which are ultralight, gliders, and maybe single-engine Cessna-type of planes here, and mostly people they are using those planes for the training purposes, for leisure and for hobby. So majority of the activity are like that on this airport. That we established, right?

HEARING OFFICER CELLI: Yes, that was established.

MR. SINGH: Okay. Wonderful.

HEARING OFFICER CELLI: Asked and answered.

MR. SINGH: And I saw a place near half a mile off of airport was a skydiving place. So does somebody done any analysis on the skydiving? Skydiving near the power plant, there's a place where people do the

skydiving, near the airport.

MR. MOSS: This is Douglas Moss.

There is skydiving accomplished near the airport. The predominant winds at Byron Airport are out of the west to northwest, coming from that direction. The skydivers generally exit the plane at a location northwest of the field and then drift down. And their actual landing zone, intended landing zone is in the northwest corner of the airfield, whereas the proposed MEP plant is south of the field. So there is no -- the MEP will have no impact on the current skydiving operations at Byron Airport.

MR. SINGH: So when they do the skydiving, do they pass over the MEP airport; but mistakenly most of the people are not trained to do the skydiving, right, and they're also -- some of them, they undergo the training with the instructors. So what are the probability that they will go over the power plant when they are doing the skydiving?

HEARING OFFICER CELLI: The question is, do you have an opinion of what the probabilities are that a skydiver will go over the plume at the Mariposa Energy Project.

MR. MOSS: This is Douglas Moss.

In our analysis, there's no foreseeable reason or time where a skydiver would be parachuting over the MEP.

MR. SINGH: So come back to Mr. Shiu.

Did you use the traffic queuing model when you did your simulation?

MR. SHIU: Henry Shiu.

Did you say "traffic wing model"?

MR. SINGH: queuing, queuing, queuing.

MR. SHIU: Quinn?

A traffic wind model?

MR. SINGH: Sorry about my English.

No, did you apply the Q theory?

MR. SHIU: Q theory?

MR. SINGH: Q theory is let us say the planes coming one after another. Right?

HEARING OFFICER CELLI: Cue, c-u-e.

MR. SHIU: Oh, queuing.

MR. SINGH: Queue, I think Q-u-e -- it's a very famous, any person goes under queuing theory.

So did you queuing theory in your models?

MR. SHIU: Queuing theory.

MR. SINGH: Queuing theory.

MR. SHIU: I'm not familiar with the queuing theory.

MR. SINGH: Okay. It's simple, like if there are people standing in a queue, and how these will be served, each person. So now the same queuing theory is being

applied for landing approach and take off also. And mostly it is being applied for the landing.

If the traffic increases, the queuing theory is being applied how to physically serve each plane and how to divert each plane if each plane is not being served at the right time for the landing.

MR. SHIU: Yeah. Just for a little bit of clarification. So the analysis that my group did was on flight dynamics of aircraft. So what would happen if an aircraft flew over the plume. And we modeled the plume, we modeled the aircraft, we modeled the pilot, see what would happen.

So we make no assumptions about likelihood of aircraft flying over the plume, traffic patterns, et cetera, we just assume that an aircraft flies over the plume on the worst day in the very worst part of the plume.

MR. SINGH: I got it.

So basically the traffic analysis was not done if the traffic grows down the time, like after one year, two year, three years, get busier, the more planes coming in and out; those simulations as a queuing theory was not done.

MR. SHIU: So I didn't do any traffic pattern analysis. And perhaps there's somebody else on the panel

who can address traffic patterns better.

MR. HESS: Could I jump in here a minute?

This summer --

HEARING OFFICER CELLI: Identify yourself, please.

MR. HESS: I'm sorry. Ronald Hess.

This summer I attended a conference that was held in Berlin, Germany at the Berlin Technical Institute. The sole purpose was weight vortex interaction, which comes to the heart of the queuing theory you're talking about. Separation of aircraft in landing is dominated by weight vortex effects. It's an important problem, it's a problem that the FAA is wrestling with, Euro Control is wrestling with. It's a complex problem, but I don't see how it interacts or impacts what we were doing here with plume analysis, particularly with the relatively small aircraft that may come in to this airport. We're not talking about coming in trail with a 747. So --

MR. SINGH: So down the line is there any assumption taken, like down the line five years or ten years this airport can get converted into a commercial where the plane can be, you know, taking off, or twin-engine aircraft or jet engines will be taking -- landing in and out.

MR. HESS: That's an excellent question; and as I

say, the FAA and Euro Control is wrestling with it. But usually it's -- how we can improve air traffic, if we can reduce separation; reducing separation requires us to know weight vortex effects. And it's a very complicated problem. Size of the lead aircraft, size of the trail aircraft, separation between the two aircraft.

MR. SINGH: I understand totally because I have done a lot of simulations.

So the basic established is that as the traffic grows on this airport with time, so there's no study being conducted on that. I just want to get a handle on to that.

MR. HESS: I'd have to defer to --

HEARING OFFICER CELLI: The question is was there any study done on queuing, right?

MR. SINGH: Not queuing. So let us say queuing is one part of it, let us say queuing is very difficult to establish because of various things. But was there any study being done, how the Mariposa plant will impact as the traffic increases down the line at the airport.

HEARING OFFICER CELLI: So his interest is in the increase in air traffic as the airport grows, as there's more air traffic in the future, what the impacts would be with regard to MEP; is that --

MR. SINGH: Yeah, right.

HEARING OFFICER CELLI: Is that right?

Okay. So who could answer that question?

MR. MOSS: Douglas Moss.

We've looked at the Byron traffic pattern and their traffic rates, and we have anticipated significant growth in traffic pattern, not that we assume that that's going to happen -- not that we predict that's going to happen, but we make the assumption that it may grow. And we see no adverse impact of MEP even under the assumption that the traffic pattern, the traffic count does increase over time.

MR. SINGH: So what was the traffic, what percentage, weekly or semi-monthly or monthly or six months or yearly, what was the total that you take -- took into the assumption?

MR. MOSS: I'm -- if I understand you correctly, you're asking what numerical value we used for a growth rate?

MR. SINGH: Very right. Percentage of any number numerical figure, percentage growth.

MR. MOSS: We did not use a specific numerical value for that. We looked at the traffic pattern configuration, and we assumed more aircraft. And we looked at the foreseeable challenges with increased flow rate. But an increased flow rate would not, you know,

increase the size of a pattern or the size of the patterns, so that it would be impacted by the MEP.

MR. SINGH: So is that -- I'm getting it clear that the growth of the traffic has not been studied?

MR. MOSS: Yes, the traffic has been studied.

MR. SINGH: What is the value of the growth we have taken? Is it five percent, ten percent, twenty percent over a year or maybe monthly or five year, this much. There has to be a growth considered, right? So what is the percentage of growth being considered?

MR. MOSS: I'm sorry. Repeat the question.

MR. SINGH: What is the percentage of the growth being considered that if the traffic is growing, let's say by five percent, how is the impact happening?

HEARING OFFICER CELLI: The question is what the percentage of growth that was assumed in the analysis.

MR. YURTIS: This is Barry Yurtis.

I don't recall what -- we referred to the Byron Airport master plan in looking at their planned growth for the future. And that included a growth in type aircraft, growth in the runway pattern for Runway 30, based upon a larger category of aircraft being accommodated at the airport. So we expanded the traffic pattern air space.

In terms of the growth in numbers of traffic, that is unrelated to an effect on MEP. They're mutually

exclusive. The number of aircraft operating into and out of the airport has nothing to do with the location of the MEP.

HEARING OFFICER CELLI: Mr. Singh, can I ask you, we've been going over half an hour.

MR. SINGH: Okay. So do we establish a record that there is no growth, actually, --

HEARING OFFICER CELLI: I'm sorry, asking how many questions do you have left.

MR. SINGH: I have another three questions.

HEARING OFFICER CELLI: Three questions? Okay. Great.

MR. SINGH: So I'm -- I'm establishing a record here that there was no growth being considered into their studies that how the --

HEARING OFFICER CELLI: Okay. I think that the testimony just was that they did consider growth, by Mr. Yurtis said that they did consider --

MR. SINGH: They considered the growth based on -- I don't have the numbers, sir, because when we're under simulation model, we pitch in, let us say the highway is the right 580, or Byron Highway; how the traffic is exceeding down the line, what is the growth factor we are taking. These are the numbers we take when we do the studies. So I'm interested in those numbers.

You're the experts; you've done a study on this.

MR. YURTIS: As I said before, we did consider the Byron Airport master plan, which is their published plans for growing the airport. It has to do with runway expansions, expansion, and different types of larger aircraft.

But again, I tell you that the number aircraft operating out of an airport will have no effect whatsoever on the MEP or vice versa; they're mutually exclusive.

HEARING OFFICER CELLI: There's your answer.

MR. SINGH: It's very interesting. It doesn't sound logical, sir.

HEARING OFFICER CELLI: I didn't say you had to like it, I just said it's your answer.

MR. SINGH: Okay. I think I'm mostly done with my questions.

Last question I have, you know you guys are all engaged in these studies. Were you paid by the applicant to do all these studies?

MR. MOSS: Douglas Moss.

We were compensated for the time that we invested in these projects.

MR. SINGH: By the applicant.

MR. MOSS: I was. I believe the others were also.

MR. SINGH: Okay. Thank you very much.

HEARING OFFICER CELLI: Thank you very much.

We're at Sierra Club. It's now 1:08. And we are going to continue. And I'm going to ask, because it seems to me that we've really gotten a lot of detail on this aviation stuff, that you really just give us -- fill in the holes as you see them. And let's see if we can move with some alacrity.

MR. CARLTON: No questions.

HEARING OFFICER CELLI: Thank you, Mr. Carlton. You can't beat that.

Mr. Simpson, did you have any aviation questions?

MR. SIMPSON: I do have a few.

HEARING OFFICER CELLI: Thank you. Let's try to not cover ground we've already covered.

MR. SIMPSON: Okay. Well, before all this started, I wanted to learn to fly. Now I just want to jump out of a plane.

CROSS-EXAMINATION

MR. SIMPSON: Who flew over the LM6000?

Mr. Moss, was that you?

MR. MOSS: Are you talking about the -- there are many LM6000s out there. Which -- which particular plant are you talking about?

MR. SIMPSON: Oh, someone asked earlier if you

flew over an LM6000 plant, and you said yes.

MR. MOSS: Yes. There's a -- Indigo power plant in -- near Palm Springs, California. And I flew over that, and Mr. Ryan Olson flew over it also.

MR. SIMPSON: Okay.

HEARING OFFICER CELLI: I would venture to say, Mr. Simpson, that we -- everybody in this room who's been in an airplane, in a jet and has flown to L.A., has flown over a power plant or two.

MR. SIMPSON: That's a good point.

How high were you when you flew over it?

MR. MOSS: We flew over it at the various altitudes, and the lowest one, the lowest altitude was, I believe, approximately 800 feet above the actual top of the stack.

MR. SIMPSON: Okay. So is a plume a hazard?

MR. MOSS: In our opinion, the plume is not a -- does not pose a significant hazard.

MR. SIMPSON: Not a significant hazard.

MR. MOSS: Well, you have to understand that everything in aviation is -- represents a hazard to some extent. Just flying an airplane on a calm day is somewhat hazardous. And you have to weigh the benefits to the risk, and you have to look at things that are significant or non-significant hazards. So in our opinion, flying

through a plume is not a hazard.

And let me hand the mic over to Mr. Lichman.

MS. LICHMAN: Mister? Now, I'm mister.

I've been converted in this wonderful three hours.

Barbara Lichman.

Your question was answered in a practical basis by Mr. Moss. But from a legal perspective, a plume is not a hazard. The FAA has never enacted any regulation controlling or designating plumes as hazards.

MR. SIMPSON: Okay.

Does anybody know how many students fly out of the airport, Mariposa?

MR. MOSS: Douglas Moss.

We do not have an exact number. In fact, if a number did exist, it would change over time. We don't have an exact number.

MR. SIMPSON: Okay. So when you say any flight has some inherent hazard, we do the same sort of thing with CEQA, but we try to quantify what the additional hazard is based upon this project.

So is the project -- does the project create a greater hazard? And we can try to quantify that in some number; you know, five planes out of a thousand are going to fall out of the sky, whatever it is.

MR. MOSS: Douglas Moss.

The FAA has already calculated the relative hazard of flight through a plume, and in their advisory circular, they have -- they have documented the number of in excess or less than one times ten to the minus ninth probability of a hazard.

And let me hand the mic over to Mr. Yurtis for his comments.

MR. YURTIS: Barry Yurtis.

We're referring to the 2006 FAA study of aircraft flight over industrial plumes and the effect thereof. The study was conducted in 2006 by the FAA in which they took a look at accident data over the last 30 years and made some determinations, determined hazard, determined risk and level of risk.

Safety is a term that most people don't really understand. If I say something is safe, what am I really saying? Is there no risk if it's safe?

If I'm in a car and I drive down the highway, and I'm doing 65 miles an hour on a two-lane road with simply a little white line separating me from another car and I pass that car at 65, and he's doing 65, I've got a 130-mile closure with only a few inches between me and that other car; someone, not me, has determined that that's safe. What do they really mean by safe? They mean

that the risk of an accident is acceptable. An acceptable level of risk.

And the FAA does the same thing in determining separation standards between aircraft, aircraft certification standards.

So the definition of safe or not hazardous is that this activity has in -- through a mathematical calculation has an acceptable level of risk. And what Mr. Moss was referring to was that study by the FAA where they determined, I believe, that the acceptable level of risk -- I might have these figures reversed because I don't have the report in front of me -- the acceptable level of risk I believe was one times ten to the minus eleventh. And they determined that the chances of incurring an accident by flying through a plume was one times ten to the minus ninth. I'm not a mathematician; they could be reversed.

Effectively what it said is based upon their calculated acceptable level of risk, flying through a plume was 100 times safer or a thousand times safer, again, I'm not a mathematic -- whatever the difference between minus ninth and minus eleventh, whatever that is, a hundred times or a thousand times safer than what they would need to determine that would be an acceptable level of risk. And therefore, the FAA in their determination in

that study -- and that study is still valid today. We realize there's another study being conducted by the FAA, but it is far from being complete. At this point in time the FAA has ruled that flying through a plume carries an acceptable level of risk to the point of as far as a human factor's input, it's actually what they call a benign effect on a pilot.

MR. SIMPSON: Thank you.

So a lot of information is contained in Exhibit 15, and my understanding is that was presented to the Byron Airport.

Were any of you a part of that, presentation to the --

MR. MOSS: I want to ask Mr. Wheatland to inform the board on the status of Exhibit 15 and --

MR. WHEATLAND: Yeah, this is our simulations that were presented to the ALUC last summer when we did the -- when we put up the flight simulations on the screen and showed the effect on a -- on aircraft. This was done in the summer of last year.

HEARING OFFICER CELLI: And that was Mr. Wheatland, for the record, attorney for the applicant.

MR. SHIU: And this is Henry Shiu.

So I guess what is Exhibit 15 is the -- presumably is the flight dynamics modeling that Ron, I,

and the rest of my team did. Ron and I both were at the Contra Costa County ALUC meetings.

MR. SIMPSON: And did they agree with your conclusions?

MR. WHEATLAND: If you know.

MR. SHIU: It's -- there were a lot of meetings over many nights, and I think the final decision on it was on a subsequent meeting.

MR. SIMPSON: So do you know if the airport land use commission or the deciding body made any determination based upon the information that you presented to them?

MR. SHIU: I believe they made some sort of determination. But this is kind of out of my area.

MR. MOSS: This is Douglas Moss.

My understanding was the ALUC commission had a determination, and they stated that there's inconsistencies with what was presented and that there is no quantifiable scientific study made of the effect of the plumes on aircraft; and for this hearing we are providing that quantifiable information. So the ALUC determination before is no longer valid because we have presented that material that they were requesting.

MR. SIMPSON: Oh, so did they change their position after you presented the material?

MR. MOSS: I don't believe they've had a chance

to change their position yet.

MR. SIMPSON: I see.

When did you present the material to them?

MR. MOSS: I'll have to ask Mr. Wheatland if he has the dates of that.

HEARING OFFICER CELLI: Actually, the question is put to the witnesses, if you know. If you don't know, say you don't know.

MR. MOSS: Okay. We do not know the answer.

MR. SIMPSON: I see. The thing you passed out today, when was that completed? It doesn't have a date on it.

HEARING OFFICER CELLI: The record should reflect Mr. Simpson is holding up what's been identified as Exhibit 705 for identification.

MR. SIMPSON: Thank you. Sorry about that.

MR. YURTIS: Barry Yurtis.

I prepared it, and I don't have an exact date. It might have been within the last six months. I don't have an exact date.

MR. SIMPSON: Was there a reason you didn't put this in with your original testimony?

MR. YURTIS: Not that I know of.

MR. SIMPSON: Thank you.

I saw some discussion about surfaces around

airports.

Is a plume surface?

MR. YURTIS: A plume is not a surface.

MR. SIMPSON: I see. So did you do any sort of studies on air quality effects on plane operations? My thought is without enough oxygen, a plane would not continue to burn fuel.

MR. SHIU: Henry Shiu.

Yes.

MR. SIMPSON: And are the results of that in your testimony?

MR. SHIU: I'll have to ask Mr. Wheatland.

Was that submitted with the testimony?

MR. WHEATLAND: Well, yes, it has been.

MR. SHIU: Yes.

MR. SIMPSON: My question is pertaining to the higher levels of carbon dioxide and such in the air. Does that affect a plane's operation?

MR. SHIU: No. And, in fact, the amount of carbon dioxide is virtually unchanged.

MR. SIMPSON: Thank you.

How about lunch?

HEARING OFFICER CELLI: Well, in a moment.

But thank you. Thank you, Mr. Simpson, for your efficiency on that.

Now, folks, this panel of experts has been here all day. I want to thank you for being here.

Is there any redirect on behalf of Mr. Wheatland?

MR. WHEATLAND: Yes, I have brief redirect.

HEARING OFFICER CELLI: Okay. Go ahead.

REDIRECT EXAMINATION

MR. WHEATLAND: Mr. Moss, both Mr. Sarvey and Mr. Simpson had asked you if you had ever flown over a plume. Did you conduct a test overflight to determine whether thermal plumes created a hazard to general aviation?

MR. MOSS: This is Douglas Moss.

Yes, I did.

MR. WHEATLAND: And who accompanied you on that over -- on those test flights?

MR. MOSS: Okay. I'm sorry, which particular test flights?

MR. WHEATLAND: Over the Indigo facility.

MR. MOSS: Over the Indigo facility, Mr. Ryan Olson and Mr. Chris Curry accompanied me on those flights.

MR. WHEATLAND: And just very briefly would you describe what result or conclusion you reached as a result of those flights?

MR. MOSS: Okay. I'll talk first, and then I'll hand the mic to Mr. Ryan Olson for his comments.

In my experience when I flew over the plumes, I noticed a jolt on the airplane; it was distinctive when you hit the plume. It was very similar to driving down a smooth highway at 60 miles an hour and running over a one-by-two piece of wood. It's a sudden onset, but a very low amplitude, no experience, probably a one-half G increase in G-loading which lasted for about a third of a second. And there's a slight rise in altitude. And then as the plane passed through the plume, the nose pitched down maybe one, one-and-a-half degrees. And that was when the airplane went through the center of the plume.

When it went through the plume offset so that the plume only hit one wing, there's approximately -- we measured eight degrees, maybe ten degrees on occasion, but generally eight degrees of bank angle change.

And generally when you do fly through a plume, it's kind of a surprise, it's kind of a rude surprise, but the effect lasts for less than half a second. And by the time you realize what had happened, you're already past the plume and you're already in smooth air again.

Also, I must further state that every time we did a test, we encountered a little bit of light chop or turbulence, and on every flight we experienced higher levels of turbulence doing other things associated with that flight.

For example, in the pattern for take off and landing, we experienced higher turbulence levels than we did when we actually flew the test point over the plume itself.

So in my opinion, and this is looking at the perspective of a solo pilot on a student cross-country solo, at his experience level, I see no effect, no hazard to a student pilot flying through a plume at traffic pattern altitude or above.

And I'll hand the microphone off to Mr. Ryan Olson.

MR. WHEATLAND: Just briefly, please.

MR. OLSON: Okay. I was also a part of these tests. I was actually in a test aircraft which was instrumented; and as an instructor I found no considerable concern to any of my studies as they flew through the plume. The effects were not anything that created an unusual attitude. And we both strongly feel that it's no concern to a student pilot.

And just to verify, the procedure we used was to hold the control column steady for two seconds following the event to simulate a delayed recovery by a student; and therefore, I feel there's no effect or hazard to aviation there.

MR. WHEATLAND: Rather than ask any additional

questions, the witnesses have prepared a report that describes the test flights they conducted, and I'd ask that it be marked for identification.

HEARING OFFICER CELLI: Now, this is new evidence marked as what?

MR. WHEATLAND: This is new evidence. And I think the applicant's next in order would be Exhibit 70.

MR. SARVEY: Objection.

HEARING OFFICER CELLI: Objection to -- based on the timeliness?

MR. SARVEY: Timeliness, we haven't seen it. The applicant keeps introducing information that could have easily been introduced in the rebuttal testimony. There's no reason for the Committee to accept that information now when we could have all had it in advance, we all could have reviewed it, we could have cross-examined these folks. Now we're done with our cross-examination, except for the redirect. I just don't think that either one of these documents belongs in the record.

HEARING OFFICER CELLI: When was that report generated, Mr. Wheatland?

MR. WHEATLAND: Mr. Moss, when was the test flight conducted?

Mr. Moss, when was the test flight conducted?

MR. MOSS: It was -- the test flights were

conducted, I believe it was the first or second week in January of this year.

HEARING OFFICER CELLI: When did you come into possession of this document, Mr. Wheatland?

MR. WHEATLAND: I believe I reviewed the first draft of this document in February of this year, approximately that time frame.

But I'd like to --

HEARING OFFICER CELLI: This month?

MR. WHEATLAND: Yes, February, this month.

But I'd like to address this very briefly.

Both Mr. Simpson and Mr. Sarvey opened the door to this area of inquiry. We did not intend to present any testimony with regard to actual overflight; however, we did anticipate that Mr. Simpson and Mr. Sarvey would argue, as they have done in this proceeding, that there were no actual overflights of a plume, and therefore, the scientific evidence had to be discredited.

Mr. Sarvey raised that very argument in response to my motion to strike the aviation testimony. He said, well, gee, these pilots -- we don't have pilots that have actually had experience flying over plumes. We anticipated they would open this door on cross, and we're prepared to address the concerns that they raised in their cross-examination.

HEARING OFFICER CELLI: So you're offering as rebuttal to cross and specifically to what area of the cross by -- you said Mr. Sarvey?

MR. WHEATLAND: Yes. First Mr. Sarvey asked our witnesses have they ever actually ever overflown a plume.

HEARING OFFICER CELLI: I'm sorry, say again.

MR. WHEATLAND: Have they actually overflown a plume.

And then Mr. Simpson asked questions along those same lines.

Had Mr. Simpson and Mr. Sarvey not raised the question of actual overflights, this exhibit would not be offered; but they opened the door, they sought to discredit our witnesses by saying, hey, they don't have the experience, they've never done this. We're here to prove that they have, and that their experience was benign.

HEARING OFFICER CELLI: Anything further, Mr. Sarvey? Go ahead.

MR. SARVEY: Yeah. Obviously they had this information before the rebuttal testimony was filed. And we -- I -- you know, obviously if we're going to let this stuff come into the record, I'm going to need an opportunity to cross-examine them on both these documents. I don't think we have the time.

HEARING OFFICER CELLI: One moment. People in the back are saying they can't hear you. So I need you -- there might be something going on with your mic.

MR. SARVEY: As I said --

HEARING OFFICER CELLI: Better.

MR. SARVEY: -- the applicant had plenty of opportunity to submit this with their rebuttal testimony. Both documents were prepared before the rebuttal testimony. If they wanted to introduce this stuff, they thought it -- he was aware that it was an issue, why didn't he submit it with his rebuttal testimony?

Now we need an opportunity to review both documents, question these people all over again for another how many hours.

I say we reject the testimony. I object to it.

HEARING OFFICER CELLI: So the question is, Mr. Wheatland, didn't we receive this testimony just now in verbal testimony from these witnesses, essentially? We have their summary of this information.

MR. WHEATLAND: Yes.

HEARING OFFICER CELLI: Okay. At this time the objection is sustained and Exhibit 70 will not be received. It will just be marked as Exhibit 70 for identification.

(Whereupon, Applicant's Exhibit 70 was marked for

identification.)

MR. WHEATLAND: To be clear, their description of their response to the questions is part of their evidentiary record; is that correct?

HEARING OFFICER CELLI: It is. I mean, the transcript is the transcript. The question is do we need this document; and the Committee is of the assumption -- belief that we do not. So I think the Committee has plenty of information, and so Exhibit 70 is not received into evidence.

Now, let me ask the intervenors, while I'm speaking of exhibits, I still have Exhibit 705 outstanding, which was the motion by Cal Pilots Andy Wilson to bring in Exhibit 705.

Were you able to talk and see if there was going to be a stipulation with regard to Exhibit 705?

MR. SARVEY: I still object for the same reasons I objected to the other one.

HEARING OFFICER CELLI: Untimely.

Okay, now what -- this was offered by you, Mr. Wilson.

MR. WILSON: It was a document authored by -- not seeing the author, but Mr. Yurtis claims that he authored the document.

HEARING OFFICER CELLI: Right. What I'm trying

to understand is why do we need this document now, late-filed document. Is the information that's covered in this document already in the record verbally by these witnesses in terms of their conclusions?

MR. WILSON: Yes.

HEARING OFFICER CELLI: I would think so. So with --

MR. WILSON: Yes, Cal Pilots say yes.

HEARING OFFICER CELLI: So then this would probably be needlessly cumulative and duplicative of the record we already have made.

MR. WILSON: Cal Pilots would agree with that.

HEARING OFFICER CELLI: Okay. So, Mr. Wheatland, did you want to also have the -- were you a proponent of Exhibit 705 for identification?

MR. WHEATLAND: Yes, we would also propose that exhibit.

HEARING OFFICER CELLI: And how would you purport to get it into the record over objection?

MR. WHEATLAND: Well, this is relevant to questions that were raised on cross. Mr. Yurtis explained in his expert opinion this is information that he relied upon in answering the questions that were posed by Mr. Wilson. And Mr. Wilson probed deeply into this area of inquiry regarding a very complicated subject matter.

And Mr. Yurtis just explained that he had this information to provide.

HEARING OFFICER CELLI: So and did we get the date of when this document, Exhibit 705 for identification, was produced?

MR. WHEATLAND: Do you have a more specific date on when this document was produced?

MR. YURTIS: I do not have a specific date.

HEARING OFFICER CELLI: Aren't you the author of this, Mr. Yurtis?

MR. YURTIS: Yes.

HEARING OFFICER CELLI: Do you have some idea when you finished --

MR. YURTIS: I would say it was authored within the last six months, but I don't have a specific date.

HEARING OFFICER CELLI: Do you have any sense of when you provided it to the applicant?

MR. YURTIS: It was shortly after I authored the document, so --

HEARING OFFICER CELLI: Six months ago, seven months, five months?

MR. YURTIS: No, within six months; but as soon as I authored it, I presented it.

HEARING OFFICER CELLI: Off the record for a moment.

(Discussion off the record.)

HEARING OFFICER CELLI: So Exhibit 705 will not be received into evidence as untimely filed. And the Committee is satisfied with the information we've received from Mr. Yurtis verbally today and from the other witnesses that this information was adequately covered in the record, this is needlessly cumulative; and that is the basis for the ruling.

So where were we?

MR. WHEATLAND: My redirect.

HEARING OFFICER CELLI: Mr. Wheatland.

MR. WHEATLAND: I have completed my redirect.

HEARING OFFICER CELLI: Okay. Recross by staff on the limited issue of flying over a plume.

MS. WILLIS: No recross.

HEARING OFFICER CELLI: Mr. Sarvey, recross on the limited issue of flying over a plume.

MR. SARVEY: Yes.

RECROSS-EXAMINATION

MR. SARVEY: I believe, Mr. Moss, you compared flying over a plume as driving over a two-by-four on the freeway?

MR. MOSS: I believe I said a one-by-four, or one-by-two.

MR. SARVEY: A one-by-two?

MR. MOSS: A small piece of wood, one inch high, probably two inches wide.

MR. SARVEY: I haven't been a student driver for many years, but I believe as an experienced driver now, and you're an experienced driver as well, would that have a potential to cause an accident if you drove over something like that?

MR. MOSS: From the impact, from the aspect of losing control of an automobile or in changing the path of an automobile, I would say it had no significant potential, no.

MR. SARVEY: No significant potential.

HEARING OFFICER CELLI: Mr. Simpson, just for your information --

MR. SARVEY: Sarvey.

HEARING OFFICER CELLI: -- I have it on good authority that every member of the Committee is a licensed driver in the State of California. We've all driven over a piece of wood.

MR. SARVEY: It's Mr. Sarvey.

MR. SIMPSON: I'm Simpson.

HEARING OFFICER CELLI: I'm sorry. Oh, I'm so sorry, Mr. Sarvey. I directed that to Mr. Sarvey. I apologize.

MR. SARVEY: He got you on that route yesterday.

Now, you said that your plane banked eight percent when you flew over this plume?

MR. MOSS: I stated eight degrees.

MR. SARVEY: Eight degrees. Okay.

That's all I have. Thank you.

HEARING OFFICER CELLI: Thank you.

Any recross on the limited issue of flying over a plume, Mountain House?

MR. GROOVER: Mr. Lamb has one question.

HEARING OFFICER CELLI: Please.

RECROSS-EXAMINATION

MR. LAMB: I don't care who answers the question.

Is it fair to say that the MEP power plant will introduce a new hazard, not looking for quantitative, to aviation in the vicinity of the Byron Airport?

MR. MOSS: Douglas Moss.

No, the MEP will not introduce any hazard.

MR. LAMB: Then I would ask --

HEARING OFFICER CELLI: And this is limited to flying over a plume.

MR. LAMB: Right.

So then I would ask why would you feel the need to avoid the plume, and why would the guideline be there? Because I guess what I'm having a problem with is an inconsistency in your testimony; one is that you would

adhere to the AIM guidelines --

HEARING OFFICER CELLI: Mr. Lamb, do I understand that the question is why would he want to avoid a plume?

MR. LAMB: Yeah, why would you -- why need to avoid a plume? What's the purpose of the AIM guidelines.

HEARING OFFICER CELLI: Thank you.

Go ahead.

MR. MOSS: Douglas Moss.

I understand your question.

There may seem to be an inconsistency, but there really is not. The AIM suggests and it recommends pilots avoid overflying a plume below a thousand feet. And that's not from necessarily a safety perspective. And for a piloting perspective, unless there's a good reason to fly directly over a plume, I as a pilot would naturally avoid it because it's uncomfortable. It's -- it's a sudden but small increase in G load, and it's not something that you really want to do. And so it's a good idea to avoid it if all other things being considered equal. But given the fact that if you do have to fly over it, it will not create a hazard to the airplane. It's mostly a comfort factor.

MR. LAMB: Would you characterize a plume as turbulence?

MR. MOSS: Douglas Moss.

By the strict definition of turbulence, that would be FAA has promulgated, it does not rise to the level of turbulence, but it is a dynamic atmospheric characteristic that loosely some people may call turbulence, but it doesn't meet the FAA criteria.

MR. LAMB: Would it be more akin to wind sheer?

MR. MOSS: I would not classify it as a wind sheer. It is a change in angle and velocity of the wind, of the relative winds.

But normally when you use the word "wind sheer," you're associating it with a meteorological event where there's a severe downdraft of air, and this is, if anything, an updraft of air. So this -- a plume is not associated with the typical characteristics and dangers associated with wind sheer.

MR. LAMB: Admittedly I'm not a pilot, an engineer or a scientist --

HEARING OFFICER CELLI: Or a mathematician.

MR. LAMB: Or a mathematician.

HEARING OFFICER CELLI: We're having a hard time counting to one around here.

MR. LAMB: I'm sorry.

HEARING OFFICER CELLI: Go ahead.

MR. LAMB: Well, I mean, to be frank, I feel that this is dodging, because the AIM guideline exists for

safety reasons. It seems clear that it exists for safety reasons. And you're saying that you wouldn't fly over a plume, but you're saying that there's no hazard. And if there's no hazard, then why would you avoid the plume? I'm just -- you know, I'm just trying to call out what seems to be an obvious inconsistency.

HEARING OFFICER CELLI: He asked why; let it rip.

MR. LAMB: Yeah, please.

MS. LICHMAN: Because you're using the term "hazard" incorrectly.

MR. LAMB: Please correct me.

MS. LICHMAN: As Mr. Moss explained, the AIM, the Aeronautical Information Manual just explains to pilots things that they should probably not invite into their cockpit.

A hazard, on the other hand, is determined by the FAA pursuant to its own regulations to be of significant risk and possibly fatal.

So we're talking about two very different situations.

When you use the word "hazard," you have to refer to the TERPS, which we explained the definition of, you have to refer to operational conditions, which Mr. Yurtis has explained to you already. So we're throwing the word "hazard" around fast and loose; but it is clear, absolute,

and unequivocal that according to the FAA regulations, which are entirely occupying the field of aircraft safety, MEP and its plume are not a hazard.

MR. LAMB: To avoid any legal definitions of words that I'm not aware of their legal definitions, is it fair to say then that flying over a plume, and I'll use an extreme, to a new student, might be more dangerous than if they were to avoid the plume?

MS. LICHMAN: I would defer to my colleagues.

MR. LAMB: Mr. Olson.

MR. OLSON: I would not consider the effects to be dangerous. There was no unusual attitude encountered by the aircraft. We have a video, if you would like to see it, of the overflight. And the bank angle never exceeded -- it never exceeded nine degrees. And the altitude change was less than 15 feet through the passes that we experienced the most significant effect. And it would not be something that would concern me as an instructor with my student on a cross-country.

HEARING OFFICER CELLI: So, Mr. Lamb, you had asked for one question. It's about seven or eight now.

MR. LAMB: No problem. I'm just trying to nail this down. But I -- I don't think I'm going to be able to.

HEARING OFFICER CELLI: I think they answered

your question.

MR. LAMB: Thank you.

HEARING OFFICER CELLI: Nothing further. Thank you.

Rajesh Dighe, any question regarding flying over plumes?

MR. DIGHE: Yes.

RECROSS-EXAMINATION

MR. DIGHE: How many number of tests were conducted before you made that conclusion?

MR. MOSS: This is Douglas Moss.

I have to speak from my own personal experience. I've made approximately 80 penetrations of a thermal plume.

And I'll let Mr. Olson talk about his experience.

MR. OLSON: At the Indigo facility, we did 27 overflights of the plume.

HEARING OFFICER CELLI: Anything further, Mr. Dighe, regarding the flying through the plume?

MR. DIGHE: So I just heard that it's not a hazard, but then I'm just reading the -- the AIM says avoid flying in the vicinity of thermal plumes, flight hazards exist around thermal plumes. And let me just quickly go in the interest of time. Thermal plumes are defined -- let me cut to the chase.

Results of encountering plume may include airplane damage, aircraft upset, and/or engine damage failure. These hazards are more critical during low altitude flight, especially during take off and landing.

So it's a hazard, right?

MR. MOSS: This is Douglas Moss.

No, it is not a hazard. You have to understand when the FAA authors its AIM, and in this particular paragraph, the two paragraphs that they recently created, they're talking about a generalized potential, maybe possible scenario; so they have to put it in very broad language. And they say there is potential for certain things to happen in a plume, and the possibilities may include the following.

We, however, have done our own tests, and we've looked at specific plants, specific areas, specific altitudes, because we wanted to quantify exactly what characteristics exist and exactly what hazards, if any, exist. And we've done that. And our determination assessment is that there is no hazard from a plume from the points that we conducted.

MR. DIGHE: So just one more comment.

So let's say -- I mean, we know the DMV says put the seat belts and it helps avoid accidents. The AIM has clearly -- I mean, it's pretty bold, it says it's a

hazard.

And so how -- why would you try to go through a plume? You will definitely try to avoid a plume, right?

It's pretty clear. I'm still confused as far as you did your independent study, and you're making a judgment there, right?

HEARING OFFICER CELLI: So is the question why would he fly through a plume?

MR. DIGHE: Yes.

HEARING OFFICER CELLI: And the answer is?

MR. DIGHE: Why would he still not avoid the plume and go through the plume?

MS. LICHMAN: I think we've turned -- Barbara Lichman.

I think we've turned the situation around. You're quite correct that pilots do try to avoid plumes, just like people who drive cars try to avoid bad corners, okay? However, that does not mean that we need to avoid putting power plants with plumes in certain locations. In fact, the FAA's guidance is completely to the opposite. It says try to avoid the plume.

When you're dealing with a hazard, the FAA says you can't put that use near an airport. That's what the definition of hazard implies.

The FAA has not reached that conclusion, has

never implemented any regulations, promulgated any regulations making plumes hazards, and in fact, has said quite the opposite. We're allowing you to put power plants here, just look before you leap.

HEARING OFFICER CELLI: Thank you.

Is that all, Mr. Dighe?

MR. DIGHE: Yes.

HEARING OFFICER CELLI: Thank you.

Andy Wilson, did you have any recross on the limited issue of flying over plumes?

MR. WILSON: No, Cal Pilots does not.

HEARING OFFICER CELLI: Thank you.

Mr. Singh, on the limited issue of flying over plumes, do you have a question?

MR. SINGH: Yes.

RECROSS-EXAMINATION

MR. SINGH: Can you hear me?

HEARING OFFICER CELLI: Yes.

MR. SINGH: Okay. Great.

So I'm talking about the experience level, right? You flew over the plume. At that particular time, how many years of flying experience you were having under your belt?

MR. MOSS: Douglas Moss.

Let me do the math in my head.

At the time I flew over the plumes, I had approximately 35 years of experience in piloting aircrafts; however, as a trained test pilot, one of the first things you learn is when you conduct tests to put yourself in the shoes of the individual that has to suffer the consequences. So I put myself in the shoes of a student pilot when I flew through the plume, and I compared myself to that level of experience and capability. So the differential in experience level was taken into account when I conducted these tests.

MR. SINGH: Okay. These tests were conducted based on somebody asked you to conduct a study? Or how these tests were conducted? Like somebody -- which was organization asked you to do conduct these tests and going through the plume for 80 times?

MR. MOSS: My experience when I stated 80 times, those were not only for this project, but previous projects of a similar nature. And the answer --

HEARING OFFICER CELLI: Is your question -- I'm sorry. Is your question, Mr. Singh, that the applicant -- did the applicant sponsor this test?

MR. SINGH: Right.

HEARING OFFICER CELLI: Okay. That's the question. Did the applicant, this applicant, Mariposa Energy Project sponsor your flying through a plume?

MR. MOSS: Yes. The applicant did pay me for conducting tests, to fly through the plume.

MR. SINGH: And how many flights you took on the applicant's behalf?

MR. MOSS: On the applicant's behalf, I conducted two flights which included 32 test points.

MR. SINGH: Two flights, and 32 test points you recorded.

MR. MOSS: That is my belief, yes.

MR. SINGH: Okay. Those 32 test points that you recorded, what were those tests that you collected the data? Two flights went through the plume, you picked 35 test points, right?

MR. MOSS: 32 test points.

MR. SINGH: 32 test points.

What is those 32 test points being documented anywhere?

MR. WHEATLAND: That's the exhibit that you objected to.

HEARING OFFICER CELLI: So the answer would be --

MR. SINGH: Not a problem.

HEARING OFFICER CELLI: Excuse me, Mr. Wheatland.

Is the answer to that question yes or no?

MR. MOSS: I'm not sure what the real question was.

HEARING OFFICER CELLI: Was the question did they document the 32 points?

MR. MOSS: This is Douglas Moss.

Yes. Those test points are documented and available.

MR. SINGH: So what was the time of your flight through the plume and what speed you flew through the plume, what was the time you were in the plume area?

MR. MOSS: We used two aircraft to fly through the plume. In my aircraft the Bonanza, we flew through it at 100 knots.

MR. SINGH: 100 knots. But for how much time you were within the plume area? Your flight came, how much time you were in that -- in that particular area of plume?

MR. WHEATLAND: Are you asking how much time to transit each plume or --

MR. SINGH: Yes.

MR. WHEATLAND: How much time to transit each plume.

MR. OLSON: The plume is a very short duration. In the passes that we did, we circled an area for approximately 1.5 hours, and the over-pass flights, each run in on the plant was approximately 30 seconds.

MR. SINGH: Are you sure? 30 seconds you can stay in the plume when you are transiting?

MR. OLSON: No, not 30 seconds in the plume. We were in the plume for approximately one to two seconds.

MR. SINGH: One to two seconds.

MR. OLSON: That's correct.

MR. SINGH: So you're saying in two seconds you collected 32 data elements?

MR. OLSON: No. To correct --

MR. SINGH: 32 data elements in two seconds. All those were recorded, 32.

MR. OLSON: No. To further elaborate on what Doug previously said, we did -- I personally did 27 overflight passes across the plant; and at that, we were recording data at a higher rate, approximately 25 hertz. So that there's a data point taken once every twenty-fifth of a second, and that was throughout the entire flight.

MR. SINGH: So my understanding is correct; these are two -- these are 32 different data collections happened, right? 32 different data collections. It's not a sampling you're doing on one single data item; you collected 32 different data elements. Am I correct?

MR. MOSS: We had 32 passes. Those were -- each pass is a run in and an overflight of the plume itself. And we repeated that a total of 32 times; 27 times in the instrumented aircraft when it was the primary test aircraft, 5 times for qualitative analysis, we flew 5

times over the plume in the Bonanza.

MR. SINGH: Okay. So did you twice, am I correct? In your last -- before statement, you said that you did two flights in the plume.

MR. MOSS: Two sorties in the plume.

MR. SINGH: Two sorties. And then the rest of the sorties, how many sorties you did, Mr. Olson?

MR. OLSON: I did -- I completed one sortie with 27 passes over the plume.

MR. SINGH: So my understanding is one sortie is one transit from that area; is that correct? Explain me the terminology when you say "sortie." Sortie is -- one sortie is take off and landing; that is considered one sortie.

MR. MOSS: That's correct.

MR. SINGH: Okay. So how come then 27 sorties you can say that through the plume area? 27 passes. So they're not sorties, right, they're passes.

HEARING OFFICER CELLI: Go ahead.

MR. MOSS: Mr. Olson flew one sortie, and in that sortie he accomplished 27 passes. I was flying in a separate aircraft. I flew two sorties, for a total of five passes.

MR. SINGH: Okay. And 27 plus 5, 32; in those 32 you collected 32 data elements. And all you did your

simple data element.

MR. MOSS: I'm sorry; repeat the question.

MR. SINGH: You have one data element, and you sample it, right, when you pass through a transit or pass. Then there are 32 different data elements you're collecting. So I'm trying to establish were those 32 different data elements, or it was one single data element you were sampling along?

MR. OLSON: Okay. I'll explain what was in the report.

We used the build-up approach, which is standard in flight tests. We started at a higher altitude and then decreased in altitude and changed the offset distance downwind of the facility. We also completed flights directly into the wind over the plume. And these tests were conducted at changing offsets and altitudes as we progressed closer to the facility, to the lowest altitude and directly over the facility.

MR. SINGH: And --

HEARING OFFICER CELLI: How many more questions, Mr. Singh?

MR. SINGH: Two more.

HEARING OFFICER CELLI: Okay.

MR. SINGH: So these aircraft that you have flown, were they the aircraft of the applicant, or you

borrowed the aircraft, or you hired those aircraft, you took it on rent those planes to conduct these tests?

MR. MOSS: I'm not sure I -- this is Douglas Moss.

I'm not sure I understand the question.

MR. WHEATLAND: I think he's asking you did you rent the plane.

MR. MOSS: Did I rent the plane?

MR. WHEATLAND: Yeah, that you used in the tests.

MR. MOSS: Ryan Olson used a Cessna 150 operated by the national test pilot school. And I flew my own Bonanza aircraft, which I own.

MR. SINGH: What type of planes were these? Were these like light aircraft, or were they single jet, or what aircrafts were these?

MR. MOSS: This is Douglas Moss.

These are considered light general aviation aircraft. Ryan's aircraft was a Cessna 150, and mine was a 1960 Model M35 Bonanza.

HEARING OFFICER CELLI: Are these single-engine planes?

MR. MOSS: Yes, they were both single-engine planes.

HEARING OFFICER CELLI: Thank you.

Anything further, Mr. Singh?

MR. SINGH: Thank you very much. I'm done.

HEARING OFFICER CELLI: Thank you.

Did Sierra Club have anything to add?

MR. CARLTON: No questions.

HEARING OFFICER CELLI: Thank you.

Mr. Simpson, anything?

MR. SIMPSON: Just a couple things, thanks.

RECROSS-EXAMINATION

MR. SIMPSON: The LM6000 plant that you flew over, was it basically the same configuration as the plant that's proposed here?

HEARING OFFICER CELLI: If you know.

MR. SIMPSON: If you know. Sure. Any of my questions would be if you know.

MR. MOSS: I do not know the exact nature of the fidelity between the ones we flew over and the ones proposed for MEP. It's my general understanding that the Indigo facility that we tested over was chosen because of its similarity with the proposed MEP plant.

MR. SIMPSON: I see. So do you know if that was a peaker plant or not?

MR. SOLBERG: This is Andy Solberg with CH2MHill.

It is peaker plant, and it was similar temperature and velocities at the stack discharge. So it's real similar.

MR. SIMPSON: Okay. Good.

And so it was a peaker plant. Peaker plants usually run in the afternoon. Did you run your tests in the afternoon?

MR. MOSS: Douglas Moss.

We intentionally ran the test in the morning because our simulations show that the worst potential, the highest impact occurs during calm wind conditions. So intentionally chose a calm wind day with a reasonably high differential between exhaust temperature and ambient temperature. We were trying to duplicate the worst-case scenario.

MR. SIMPSON: You understand that peaker plants don't usually run in the morning, right?

MR. MOSS: We understand that; but the -- it doesn't matter what time of the day that you run the plants. The important factors are the temperature differential and the amount of winds. And we chose the conditions that were worst case for the aircraft characteristics, realizing that, you know, the worst-case scenario will probably never happen in reality because during the afternoon when the peaker plant will most likely run, that's the times when there's the low differential temperature and the highest wind.

MR. SIMPSON: Okay. Would you like to take the

commissioners for a ride in a plane over a plume?

MR. MOSS: I'd be happy to.

MR. SIMPSON: Thank you.

No more questions.

HEARING OFFICER CELLI: Thank you, Mr. Simpson.

And that wraps up --

MR. WHEATLAND: I've got -- I have to ask -- there's one question I have to ask. I apologize profusely, but I have to ask.

HEARING OFFICER CELLI: You have to redirect, so that they have to recross.

MR. WHEATLAND: I know. But I have to ask. The recross would be limited to this one question.

REDIRECT EXAMINATION

MR. WHEATLAND: But to your knowledge was the plant operating at the time of your overflight?

MR. MOSS: Yes. We had it confirmed that the plant was operating at 100 percent on two of the stacks, and we -- and we felt it.

MR. SINGH: I have one more question. Last question.

HEARING OFFICER CELLI: One moment. I'm going to get to you.

Staff, any recross on whether the Indigo plant was operating?

MS. WILLIS: No.

HEARING OFFICER CELLI: Mr. Sarvey, any recross on whether Indigo was operating?

MR. SARVEY: No.

HEARING OFFICER CELLI: Thank you.

You know, I appreciate that this is a huge comedy possibility, but I appreciate your restraint, everyone. Let's just get to -- we want to break for lunch.

Mr. Lamb, any question on whether Indigo --

MR. LAMB: No.

HEARING OFFICER CELLI: Okay. Mr. Dighe, any question on Indigo's operability at the time?

MR. DIGHE: No.

HEARING OFFICER CELLI: Mr. Wilson?

MR. WILSON: No.

HEARING OFFICER CELLI: Mr. Singh?

MR. SINGH: Last question.

RECROSS-EXAMINATION

MR. SINGH: What was the time that these flights or sorties or the passes were conducted? What was the time of the day?

HEARING OFFICER CELLI: No, you may not answer that question because that exceeds the scope of the direct, or the redirect, rather.

So I'm sorry, you can't ask that question.

Sierra Club, any question with regard to --

RECROSS-EXAMINATION

MR. CARLTON: Yeah. You said that two stacks were going. How many stacks were there on the Indigo plant?

MR. MOSS: On the Indigo plant there are three stacks.

MR. CARLTON: So only two out of the three were going?

MR. MOSS: That was in -- yes, two out of three were going. And that was intentional because we were trying to duplicate as best we could the characteristics that the MEP plant would produce.

HEARING OFFICER CELLI: Anything further, Mr. Carlton?

MR. CARLTON: No.

HEARING OFFICER CELLI: Thank you.

Mr. Simpson, hate to interrupt you, but just wanted to know whether you had a question as to whether the Indigo plant was operating at the time.

MR. SIMPSON: I think I started that. I think they responded that two of the stacks were operating at the time.

RECROSS-EXAMINATION

MR. SIMPSON: Do you know how many stacks are

planned at the new facility?

HEARING OFFICER CELLI: I'm cutting that one off because it exceeds the scope of the question on redirect.

Okay. Nothing further?

MR. SIMPSON: No.

HEARING OFFICER CELLI: Thank you.

Ladies and gentlemen, appreciate your patience. I want to thank the panel members for being here today. We are going to take a break. It's now 1:58. We're going to take a 20-minute break so that the Committee can have lunch. And we're serious about the 20 minutes. We'll be back at 2:20 to begin on staff's traffic and transportation witnesses. So that's where we are in the flow.

(Lunch recess.)

AFTERNOON SESSION

HEARING OFFICER CELLI: On the record. Have these witnesses sworn.

(Witnesses sworn.)

THE REPORTER: Please state and spell your names for the record.

MS. KOCH: Andrea Koch, K-o-c-h.

MS. STRATTAN: Shaelyn Strattan, S-h-a-e-l-y-n, S-t-r-a-t-t-a-n.

HEARING OFFICER CELLI: Thank you.

Staff.

DIRECT EXAMINATION

MS. WILLIS: Ms. Koch, would you please state -- was a statement for your qualifications attached to your testimony?

MS. KOCH: I'm sorry; could you repeat the question?

MS. WILLIS: Sorry. Was a statement of your qualifications attached to your testimony?

MS. KOCH: Yes.

MS. WILLIS: Could you please briefly state your education and experience as it pertains to traffic and transportation and aviation.

MS. KOCH: I have a masters in city and regional planning, and that involved course work having to do with

transportation. And I've also worked as a city planner for five years and dealt with transportation issues.

MS. WILLIS: Thank you. Did you prepare or assist in preparing the testimony entitled "Traffic and Transportation" in the supplemental staff assessment marked Exhibit 301?

MS. KOCH: Yes, I prepared it.

MS. WILLIS: And do the opinions contained in your testimony represent your best professional judgment?

MS. KOCH: Yes, they do.

MS. WILLIS: Ms. Strattan --

MS. STRATTAN: Yes.

MS. WILLIS: -- was a statement of your qualifications attached to your testimony?

MS. STRATTAN: Yes, it was.

MS. WILLIS: And could you -- could you please briefly state your education, experience as it pertains to traffic and transportation and aviation.

MS. STRATTAN: I have 12 years' experience in land use and environmental planning, a certificate of environmental planning through UC Davis. I have approximately seven years' experience as an air traffic control specialist with the Federal Aviation Administration and the U.S. Air Force, and six years as a National Weather Service certified weather server. I've

also worked preparing traffic and transportation sections with an emphasis on aviation with the Energy Commission for a little over four and a half years.

MS. WILLIS: And do the opinions -- I'm sorry.

Did you prepare, assist in preparing the testimony entitled "Traffic and Transportation" in the supplemental staff assessment?

MS. STRATTAN: Yes, I did.

MS. WILLIS: And do the opinions contained in that testimony represent your best professional judgment?

MS. STRATTAN: Yes, they do.

MS. WILLIS: These witnesses are available for cross.

HEARING OFFICER CELLI: Thank you, Ms. Willis.

Mr. Sarvey, these are your witnesses now.

MR. SARVEY: Once again, I'm going to let --

HEARING OFFICER CELLI: Mr. Wilson.

MR. SARVEY: -- Mr. Wilson take over. It's his issue, so we'd like to have him lead, if that's okay.

HEARING OFFICER CELLI: Yes.

And I want to be clear with everyone that I really want to avoid any cumulative evidence at this point. We just had a panel of experts that we've heard from; we got a lot of evidence just now. I do not want to have to go back over the evidence we've already got. So

let's be efficient today. We're quite a bit behind.

Mr. Wilson.

CROSS-EXAMINATION

MR. WILSON: The Energy Commission has ultimate jurisdiction over the project, but has -- has staff considered the input both from Contra Costa County and Alameda County Airport Land Use Commissions?

MS. KOCH: Yes, staff has considered input from the Contra Costa County Airport Land Use Commission.

Give me a second to thumb through my report, and I'll refer to it specifically.

HEARING OFFICER CELLI: And for the record, for those people on the telephone, this is Ms. Koch speaking.

When you speak, since we have a panel of both of you, you need to say your name each time --

MS. KOCH: Sure. Thank you.

HEARING OFFICER CELLI: -- so people on the phone --

MS. KOCH: So on page 4.10-25 of the traffic and transportation analysis, staff listed Contra Costa County land use policies and showed how the project is consistent with them.

And do you have anything to add?

MR. SIMPSON: I'm sorry; we'll get less echo if you hold it a little farther from your mouth and speak up.

MS. STRATTAN: Shaelyn Strattan.

We received comments from the Contra Costa County Airport Land Use Commission. Those were covered in the supplemental staff assessment starting on page 4.10-35. We did consider their concerns. And along with the comments referenced, the ACLU -- the Airport Land Use Commission, ALCU, and the comments related to that from the board of supervisors and from the planning departments of both Contra Costa and Alameda County.

MR. WILSON: The same question holds true for San Joaquin County.

MS. KOCH: We didn't receive any comments from San Joaquin county.

HEARING OFFICER CELLI: And that was -- please identify yourself.

MS. KOCH: Oh, I'm sorry. Andrea Koch.

HEARING OFFICER CELLI: Did you solicit any questions from San Joaquin County or any comment?

MS. KOCH: I didn't personally, but I believe they were noticed.

Do you have anything to add?

MS. STRATTAN: Yes.

They were included on the list -- Shaelyn Strattan.

They were included on the list of agencies and

they were notified and requested to comment, but no comments were received.

HEARING OFFICER CELLI: Thank you.

MR. WILSON: I think -- so I did have questions written out, but I'm trying to get rid of the ones that I feel have already been answered.

HEARING OFFICER CELLI: Good for you. Thank you.

MR. WILSON: In your Exhibit 300, which is the S.A., you make reference to the thermal plume being 1500 feet. Is there any reason why you're giving an altitude to it?

MS. WILLIS: Mr. Celli, just for point of clarification, are we talking about the supplemental staff assessment, because that's the testimony of these witnesses, or the staff --

MR. WILSON: Both are in.

HEARING OFFICER CELLI: That's true --

MS. WILLIS: Actually, no, that's not true. Only portions of the staff assessment were entered into the record.

HEARING OFFICER CELLI: Right. So --

MR. WILSON: I would disagree with that. That issue came up, and I believe you're on record as saying no, we're going to include both 300 and 301 in their entirety.

HEARING OFFICER CELLI: They've both been received into evidence in their entirety.

Now, what I received --

MS. WILLIS: I'm sorry, that's not correct. On 300 we listed only certain sections. Those were the undisputed sections.

HEARING OFFICER CELLI: Right.

MS. WILLIS: The other sections are a part of 301, and that's our testimony, not the sections as they appeared in the staff assessment, just the supplemental staff assessment.

HEARING OFFICER CELLI: What I received was Exhibit 300, which is staff's assessment, and I brought the staff's supplemental assessment, because the staff assessment only contained undisputed topics, which is why I didn't bring it with me today.

The staff's supplemental -- or supplemental staff assessment contained all of the issues that we're now taking testimony on, and that's why I only brought the one document with me.

So that was my understanding, that the -- the S.A. contained only those undisputed topics.

MS. WILLIS: Correct. And as we said on the -- our exhibit list, it says the staff assessment includes only the following sections. So we outlined -- we listed

the sections that we were including in the 300, and then listed out the rest of the sections for 301 that would complete all of the topics.

HEARING OFFICER CELLI: Okay. So that's what's in the record now.

Is that clear, Mr. Wilson? In other words, they limited the section --

MR. WILSON: I understand.

HEARING OFFICER CELLI: Okay.

MR. SIMPSON: Do you want a copy?

HEARING OFFICER CELLI: No, I actually have one in a binder. I'm -- of the S.S.A.

MS. KOCH: Andrea Koch.

May I clarify the question?

Andy, are you referring specifically to condition of certification Trans 8 pilot notification and awareness where it states that the applicant shall submit a letter to the FAA requesting a Notice to Airmen be issued advising pilots of the location of the MEP and recommending avoidance of overflight of the project site below 1500 feet AGL?

MR. WILSON: Yes. And earlier today it was stated that -- by the expert witnesses that that had to be sent to a recognized body of the FAA. So the sponsor of the airport could be -- so it could either be sent,

request to be sent directly to the sponsor of the airport or any other recognized FAA authority.

MS. KOCH: So you wanted to know why we picked that number? Do you have that question?

MR. WILSON: Yes.

MS. KOCH: It was because we found on page 4.10-22 of the report that aircraft overflying the MEP when it's in full operation at altitudes lower than 1230 feet AGL could potentially be subjected to potentially hazardous turbulence. So we went up to 1500 feet AGL in the sentence of certification just to kind of add an extra margin of safety.

MR. WILSON: Okay. Very good. Thank you.

And that's based -- no, that's okay.

That's all I have. And the reason is that we had such a thorough explanation from the experts, so I think -- I would reserve one more question.

HEARING OFFICER CELLI: Thank you, Mr. Wilson.

Folks, remember, this is staff, so really this is -- what you're going to be asking them about is what they said in the staff analysis really, rather than what you went into today with regard -- with the other experts.

Mr. Sarvey, I'm going to start with you then crossing these witnesses.

///

CROSS-EXAMINATION

MR. SARVEY: Page 4.10-23, your testimony, it says that high velocity plumes do present a potentially significant hazard to aircraft. The applicant's witnesses testified otherwise. Do you disagree with that, with the applicant's testimony that high velocity plumes don't present a potentially-significant hazard to aircraft?

MS. STRATTAN: Shaelyn Strattan.

The experts from the applicant were talking specific to this project. This particular statement is a general statement regarding any type of vertical plume that would exceed a certain velocity.

MR. SARVEY: Were either of you involved in the East Shore proceeding?

MS. STRATTAN: Yes, I was.

MR. SARVEY: And how does the plume from an LS6000 compare to the plume of the internal combustion engines that were utilized in the East Shore project?

MS. STRATTAN: Shaelyn Strattan.

I did not do the plume analysis, so I would not be able -- I don't have the expertise to compare the two plumes. There was also extenuating other circumstances at the East Shore project that don't apply to the Mariposa project.

MR. SARVEY: Does staff have -- anyone available

to address that?

MS. STRATTAN: Not at this time.

HEARING OFFICER CELLI: The question was, what, the plume analysis, is that your question, Mr. Sarvey?

MR. SARVEY: Well, my question, I asked a question how this particular MEP LM6000 turbine plume compared to the plumes of the East Shore project which had IC engines which were about 16.9 megawatts or something like that. So I just wanted to kind of get a feel for -- you know, I think you know where I'm going, but --

HEARING OFFICER CELLI: Yes, I do.

MS. STRATTAN: Shaelyn Strattan.

Although I don't have the information regarding the differences in the production of the plumes, what we did look at, both the East Shore and the Mariposa project, had to do with the velocity of the plumes at the various altitudes. The altitudes at East Shore were at the -- the altitudes that we looked at were lower where the aircraft would impact, they came to -- they dissipated at a lower altitude than the ones at the Mariposa project by approximately 300 feet.

MR. SARVEY: So the Mariposa project's plume is what percentage higher than the East Shore one?

MS. STRATTAN: I don't have the percentages, only that the maximum velocity that we look at at the 4.3

meters per second for our level of significance, the plumes from the East Shore project dissipated below that at approximately 900 feet in altitude above ground level, and the Mariposa project went to 1230 feet in our analysis.

MR. SARVEY: So staff opposed or -- staff was not in favor of the East Shore project because of the aviation issue. Why is it different here in the MEP?

MS. STRATTAN: Shaelyn Strattan.

I prepared the traffic and transportation section for the East Shore project. The East Shore project, as I said, had many extenuating circumstances that are not present here in the Mariposa project. The project was located almost within the published departure path for the Hayward Airport. The plumes had the potential to even extend into that -- the safety zone for the departure path so that if the aircraft that were departing were to accidentally veer even slightly from the centerline, there was a potential for them to overfly the plume. There were height restrictions on the air space in the area that don't exist here at Mariposa.

So we have the Mariposa project which is even taking it from the boundary of the safety areas at least two miles, or more than two miles from the location, whereas the East Shore project was immediately adjacent to

the published departure paths and within a mile of the actual traffic pattern for the airport. There were significant differences in the two projects.

MR. SARVEY: And does your analysis include any impact or effect to the Byron Airport from the East Altamont Energy Center?

MS. KOCH: Yes, it does. Let me thumb to that page.

HEARING OFFICER CELLI: Please identify yourself.

MS. KOCH: Oh, Andrea Koch.

MR. SIMPSON: Sorry, Mr. Sarvey, it's a little hard to hear you still.

HEARING OFFICER CELLI: Mr. Simpson, I didn't hear that. What did you say?

MR. SIMPSON: It's a little hard to hear Mr. Sarvey, and me, apparently.

HEARING OFFICER CELLI: You know, in this room, it all depends on where you're sitting. Sometimes people sound like they're under water. So all we can say is, everyone, we do our best, and please try to speak clearly and slowly from up here where the panel sits. And let's listen closely.

MR. SIMPSON: Is there any chance we could turn off this projector? It's the noise that comes from here that just goes all day.

HEARING OFFICER CELLI: You know, I don't know, but that's, you know, something -- if I even go down that tunnel, that's about 15 minutes of time I don't have. So let's just leave it and move on.

Go ahead.

MS. KOCH: Thank you. Andrea Koch.

I'm referring to page 4.10-32 of my analysis, and it's the cumulative aviation impact section. The East Altamont Energy Center is a half mile northeast of the centerline of the instrument approach to the Byron Airport, approximately three miles southeast of the Byron Airport. And for a plane coming in to Runway 30, it would go in between the East Altamont Energy Center and the Mariposa Energy Project, and it would not need to overfly either project. So we found that cumulative aviation impacts considering the East Altamont Energy Center to be less than significant.

I also wanted to add that at this point it looks very unlikely that the East Altamont Energy Center will be built. They haven't yet obtained a power purchase agreement, which they need to obtain by August -- or they need to start construction by August 2011, and they need a power purchase agreement to do that.

MR. SARVEY: So your testimony is East Altamont Energy Center's not reasonably foreseeable?

MS. KOCH: No, we're -- Andrea Koch.

We're considering it reasonably foreseeable, just to be cautious and conservative. I just wanted to add that detail.

MS. STRATTAN: Shaelyn Strattan.

It should also be noted that we understand the air district permit for that project, for the East Altamont project has been returned to the district, so they currently do not have a district air permit for the East Altamont project at this time. So that makes it even less likely that that plant will begin construction under the current license.

MR. SARVEY: Objection; speculation.

HEARING OFFICER CELLI: Well, you asked the question; she answered it.

MR. SARVEY: Okay. Withdraw my objection.

If the East Altamont Energy Center were to be built, they walked into the Commission business meeting with a direct access PPA in hand, how much air space would be impacted around the Byron Airport if both projects were to be permitted and operating?

MS. STRATTAN: Shaelyn Strattan.

As with the East Altamont, there is no restriction regarding overflight of the plume, and it is outside all of the safety areas for the project -- for the

Byron Airport. So based on that, there would be no restricted air space related to East Altamont.

The area for the Mariposa project, there would be advisories to overfly -- not to overfly the plume; but again, it is outside all of the safety areas for the Byron Airport. So from the perspective of impacting the airport usage and operation, we would have to say that neither plant would significantly impact the Byron Airport.

MR. SARVEY: Was it Mr. Walters that did your plume analysis?

MS. KOCH: Andrea Koch.

Yes, it was.

MR. SARVEY: And he's not available today. That's correct?

MS. KOCH: That is correct.

MR. SARVEY: Well, since he's not available, to your knowledge did Mr. Walters examine the effect of the East Altamont Energy Center's plume on an aircraft flying through it?

MS. KOCH: Andrea Koch.

To my knowledge, no, he did not.

MR. SARVEY: That's all I have. Thank you.

HEARING OFFICER CELLI: Thank you, Mr. Sarvey.

Mountain House, any questions for staff?

MR. LAMB: Just one.

CROSS-EXAMINATION

MR. LAMB: I just want to see if your opinion varies from the applicant's witnesses.

How would you define "hazard"? Would you say that -- the same question, I guess, I gave them.

HEARING OFFICER CELLI: Let me -- let me just say the question is how would you define "hazard"?

MR. LAMB: Thank you.

MS. STRATTAN: Shaelyn Strattan.

With regard to aviation, hazard would be something that could adversely impact the aircraft that might be in the -- you know, the operation of the airport, or the operation of the -- safe operation of the aircraft.

MR. LAMB: And do you believe that the MEP project's plume constitutes a hazard to aviation in and around Byron Airport?

MS. STRATTAN: We have stated that it has the potential to be a hazard under certain circumstances.

MR. LAMB: Okay. Cautious maybe.

Okay. Thank you. That's all I wanted.

HEARING OFFICER CELLI: Thank you, Mountain House.

Rajesh Dighe.

MR. DIGHE: I'm going to ask questions which the applicant's experts did not answer.

MR. WHEATLAND: For the record, I'm going to renew my objection to Mr. Dighe asking questions. He did not identify any cross-examination time for this witness, nor did he submit any affirmative testimony, nor did he specifically state the issues in dispute with respect to this issue. He has not met any of the requirements that the Committee set as a precondition for cross-examination.

HEARING OFFICER CELLI: Let me look at that. Traffic and transportation. Okay. We had applicants, we had staff, and Cal Pilots are the only people who have direct testimony to put in. And then the people who had requested cross-examination with regard to traffic and transportation were Rob Simpson, Sarvey, Rajesh Dighe, Jass Singh, and Cal Pilots.

MR. WHEATLAND: I'm looking at Mr. Dighe's prehearing conference statement. I don't see that as a topic area upon which he desires to cross-examine witnesses.

HEARING OFFICER CELLI: Well, I had -- where are you looking?

(Comment from beyond microphone range.)

HEARING OFFICER CELLI: There is the fountain out front.

(Discussion beyond microphone range.)

HEARING OFFICER CELLI: That's an accurate

statement.

Mr. Dighe, your prehearing conference statement did not identify traffic and transportation and aviation as an area you sought to cross-examine in. And in light of the fact that we're low on time, I think we need to get moving again.

MR. SIMPSON: I think he clarified at the prehearing conference that he wanted to examine on this.

HEARING OFFICER CELLI: Say again. I didn't --

MR. SIMPSON: I believe he identified at the prehearing conference that he wanted to cross-examine.

HEARING OFFICER CELLI: That's right.

I have you on the list; I imagine that's what's fair. I'm going to let you ask -- how many questions do you have, Mr. Dighe?

MR. DIGHE: Just two questions.

HEARING OFFICER CELLI: Two questions. Let's -- from now on, folks, we're going to be checking your math, so when you tell me two questions, it's two questions.

Go ahead, Mr. Dighe.

CROSS-EXAMINATION

MR. DIGHE: So any accident statistics on towered and non-towered airports, was it conducted by the staff?

MS. STRATTAN: I'm sorry, I didn't understand.

MR. DIGHE: So did the staff conduct any airport

accident statistics and maybe going close to the airport? Is it like an increased hazard?

MS. STRATTAN: Are you asking that would the Mariposa project increase the safety hazard of the -- aviation risk of the Byron Airport?

MR. DIGHE: Yes. Non-towered Byron Airport.

MS. KOCH: Andrea Koch.

Are you asking whether or not there's a difference in safety risks between non-towered and towered airports and if we've done any research on that?

MR. DIGHE: Yes. That's first. And then --

HEARING OFFICER CELLI: We've already covered that ground with the experts this morning. And they said that there was no appreciable difference. And that is really those experts' area, not these experts. This is staff.

So what's your next question?

MR. DIGHE: The next question is the number of -- the count of different types of planes, which I believe was --

HEARING OFFICER CELLI: If they know.

MR. DIGHE: If they know. I know they did not answer. This is the gliders, ultralights, small engines, different types of planes going into Byron Airport, was that been done?

MS. STRATTAN: Shaelyn Strattan.

The number of -- the aircraft operations, as noted in the RNAV, gave us the numerical count for operational statistics of all of those categories, including ultralights, gliders, helicopters, jet aircraft, multi-engine and single-engine aircraft. So those were considered.

The aircraft count for the Byron Airport showed an average daily use of operations of 164 per day. 92 percent of those were general aviation, 8 percent were considered transient in that they were not based at the Byron Airport. They had less than 1 percent that was military. And that was for a one-year period ending January 31st of 2010.

So yes, we did look at all aspects, all of the various types of aircraft that might be using the airport or the surrounding area.

MR. DIGHE: So for the record, how many gliders you said?

MS. STRATTAN: The number of gliders indicated on the statistics were 20, and that's -- that's on a daily basis.

HEARING OFFICER CELLI: 20 per day?

MS. STRATTAN: 20 aircraft that has operate -- that are based on the field. And considering the limited

area that gliders usually fly in, it's likely that most gliders that use the Byron Airport would also be based at the airport.

HEARING OFFICER CELLI: So that was 20 per day was the answer.

MS. STRATTAN: No, it's 20 that are actually based at the airport. And their usage would be included in the 164 operations per day. We don't know the percentage of the use of the gliders versus other kinds of aircraft.

HEARING OFFICER CELLI: Oh, I see.

MR. DIGHE: And so this was which year?

MS. STRATTAN: That was correct, that was ending as of January 31st, 2010. So this was not this existing year, but last year, end of January of last year.

MR. DIGHE: Just a quick question.

HEARING OFFICER CELLI: Very quick.

MR. DIGHE: Are you seeing the growth? Is it going to grow? Do you know any idea if it's seeing a part where we are seeing an increased number of gliders come because of the growth of the neighborhood?

MS. STRATTAN: Shaelyn Strattan.

Are you asking do we expect the operations to increase at Byron Airport?

MR. DIGHE: Yes. Yes.

MS. STRATTAN: Is that for gliders or for general aviation?

MR. DIGHE: Gliders.

MS. STRATTAN: We do not have that information.

MR. DIGHE: Thank you.

HEARING OFFICER CELLI: Thank you.

Mr. Wilson, you said you had another question you wanted to get back to later.

MR. WILSON: Thank you for asking. I'm done.

HEARING OFFICER CELLI: Thank you, sir.

Mr. Singh, any questions?

CROSS-EXAMINATION

MR. SINGH: You just mentioned that there are 90 percent general aviation; 8 percent you mentioned, what was that category when you segregating your numbers? 90 percent is a general aviation --

MS. STRATTAN: Shaelyn Strattan.

According to the information provided to the -- by the FAA on the RNAV web site, approximately 92 percent of the aircraft operations at the Byron Airport for the year ending January of 2010 was approximately 92 percent.

MR. SINGH: And then 8 percent you mentioned were?

MS. STRATTAN: 8 percent was transient general aviation. That generally means that the pilot or that the

aircraft is not based at the Byron Airport.

MR. SINGH: Okay. So all of the general aviation, these are all non-commercial aircraft?

MS. STRATTAN: Shaelyn Strattan.

It doesn't necessarily mean that they're non-commercial in that they might be used for some commercial purpose, it simply means that they are what we consider general aviation rather than a commercial airline or some established commercial purpose, such as cargo; but that doesn't necessarily preclude that the aircraft could be used for some commercial purpose.

MR. SINGH: Out of 92 percent, how many percentage are gliders and single engine, Cessna type of planes. Do you have that statistics?

MS. STRATTAN: Shaelyn Strattan.

No, we don't.

MR. SINGH: So let me understand the process. Let us say you have some data to be in compliance. So I understand that the applicant has the burden to prove it. So applicant gives you the data, then you guys analyze the data, and you say, okay, it may meet this, this, and this. And how do you further do analysis to reverify the data being submitted by the applicant?

MS. STRATTAN: Shaelyn Strattan.

The information provided from the applicant for

our analysis is only one part of our analysis. We request information from the various agencies that might have that. We do independent research in some cases; we get information from the FAA, from public citizens that provide information. So a variety of sources. And the information provided in the AFC and in the data request and responses from the applicant are only one part of what we use in our analysis.

MR. SINGH: Okay. So now coming down to your glider counts, 20 gliders per day, right, that are in operation at Byron Airport?

MS. STRATTAN: Shaelyn Strattan.

No, that's 20 glider aircraft are based at Byron Airport. They may fly once a year, they may fly every day, they may fly many times during the day. We don't have that data.

MR. SINGH: Okay. So you don't have that data.

So do you understand that what is the risk of a glider because those are not having too many controls, not having too many instruments, and wherever the wind is there, it goes along with the wind, and they also land according to the wind. What does it mean, there is a high possibility because these are not having controlled instruments they may fly over most of the time your power plant?

MS. STRATTAN: Shaelyn Strattan.

There are procedures in place at the Byron Airport that give priority to non-motorized aircraft over motorized aircraft; and although the gliders are not necessarily powered, the pilots are required, as our any aircraft pilots, to see and avoid obstacles.

This is the reason that we have the two conditions of certification, which allow the pilots to be aware that there is something that might affect their flight in the vicinity of the Mariposa plant or any other project that might provide some type of an obstruction or potential hazard. So they are required to avoid -- well, not required, but it is recommended that they avoid that area.

MR. SINGH: So and since they don't have the instrument, it is very difficult to avoid the area, you also understand, or your staff understands that. Not having the instruments, and trust me, I've done the gliding, it is just a --

(Discussion beyond range of microphone.)

MR. SINGH: So basically most of the time, although you set the target for landing, you never go to it, because it always depends on your height when you start coming down. And you start coming down in circles, it doesn't come down like this. When it start coming down

in circle, there's a high probability they will pass over the Mariposa plant, MEP. So that study analysis was done or not?

MS. STRATTAN: Shaelyn Strattan.

I have to go back to the requirements that the pilot is responsible for his aircraft, his or her aircraft, and that they are responsible for the flight path and where they have designed it. There may be, just like any other aircraft, there are emergencies, but that's why pilots plan their usage of an area.

So anything that would be a hazard, whether it be -- the Mariposa plant is a fixed location, just like transmission lines --

MR. SINGH: I'm just asking --

HEARING OFFICER CELLI: Let the --

MR. SINGH: -- did you do a study, yes or no?

HEARING OFFICER CELLI: Excuse me, let the witness finish the previous question, then you can ask your next question.

Go ahead, Ms. Strattan.

MS. STRATTAN: The Mariposa plant is a fixed location just like a transmission line or any other potential obstacle to a pilot. And once that location is established on the charts, or advised to the pilot through the Notice to Airmen, then it's the responsibility of the

pilot from that point forward to avoid that area if they feel it would be a hazard to their aircraft.

MR. SINGH: So the study was not conducted.

MS. STRATTAN: A study for what, please?

MR. SINGH: The same analysis. You know, that means you have the recommendation, okay, you don't fly over MEP, there is the FAA guidelines and all those things.

But I want to look into the study basically -- I want to make a record here. Gliders are uncontrolled --

MR. WHEATLAND: I'm going to object to this. He's testifying rather than asking questions.

HEARING OFFICER CELLI: Well, let's do it this way, Mr. Singh: If you want to have a glider defined as an uncontrolled aircraft or something like that, ask them, and let them make the record for you.

MR. SINGH: Okay. So my understanding is, and correct me, you have not done any analysis for the glider, which has a high potential, since the controls are not there, the instruments are not there, they will, according to the air, velocity, temperature of the air, they can cross over MEP, there's a high probability.

MS. STRATTAN: Could you clarify what your actual question is?

HEARING OFFICER CELLI: Right. That was actually

about ten questions.

So let me say what I mean, Mr. Singh. You need to let these witnesses establish each premise, okay? Is a glider -- you know, what are the controllers or whatever; but basically let them make the case for you, okay, what a glider is, et cetera. But you need that testimony to come from them and you have to ask them one question at a time. Try to do it in bite-size pieces if you can.

MR. SINGH: Sorry about that. English is not my first language, so, you know.

Anyway, so do you agree gliders are not having any instruments?

MS. KOCH: Andrea Koch.

I'm sorry, could you repeat the question?

MR. SINGH: Do you agree that gliders are not having any instruments to control except for two cords?

MS. STRATTAN: Shaelyn Strattan.

Gliders can and have instruments on board. They usually do not fly under instrument flight rules, but they are considered an aircraft, they're simply a non-powered -- a non-motorized aircraft.

MR. SINGH: Right. So they are not being controlled as per the wish of any Cessna or single-engine aircraft, right? So if I'm going to control single-engine aircraft, it is easier for me ten times than a glider,

which is scale of one. So being that --

MS. WILLIS: Objection. Mr. Celli --

HEARING OFFICER CELLI: Sustained.

MS. WILLIS: Is it possible just to have one question at a time?

HEARING OFFICER CELLI: Yes.

So let me help you out here. I think -- because the question you were asking was is it the case that a glider is not a self-propelled aircraft.

MS. STRATTAN: Shaelyn Strattan.

That's correct. It is not a motorized aircraft.

HEARING OFFICER CELLI: Okay. So we have that. So obviously -- and we know that it would and lot easier to fly out of a situation if you were propelled than if you were not, such as a glider.

MR. SINGH: Right.

HEARING OFFICER CELLI: So that's pretty much logical; we understand that.

MR. SINGH: So the study which I'm looking for, was the study conducted that in those situations, glider will so many times will pass over the power plant, although they are restricted not to go, but since they are not managed properly or not controlled properly because of lack of equipment, the probability will be more that they will go over the power plant.

MS. STRATTAN: Shaelyn Strattan.

I do not think that there is any way we would know a percentage of whether a properly operated glider would necessarily present more of a safety risk or have more likelihood of flying over the Mariposa site if the pilot was aware of its location than a powered aircraft.

MR. SINGH: So did you do any type of study that if a glider versus single-engine aircraft or single multi-engine aircraft with lot of equipment, what is the risk factor of a glider going over the plant?

HEARING OFFICER CELLI: What is the perspective did you say?

MR. SINGH: The risk factor, what is the risk.

HEARING OFFICER CELLI: Oh, the risk factor. What is the risk factor of a glider versus a single-engine plane let's say --

MR. SINGH: Or multi-engine plane with full equipment, you know.

HEARING OFFICER CELLI: Okay. That's the question.

MS. KOCH: Andrea Koch.

No, we did not conduct a study like that. The data is just not available.

HEARING OFFICER CELLI: There's your answer.

MR. SINGH: Can you draw me the -- what is the

boundary around Mariposa plant in terms of two miles around like there is no-fly zone above Mariposa plant? What are the boundaries?

MR. WHEATLAND: Objection. This is general discovery. I think he should be -- if I may say, I think he should be directing his questions to their testimony and not general discovery questions.

HEARING OFFICER CELLI: I understand. Let me see if I can help out here.

Is there a no-fly zone over the MEP?

MS. STRATTAN: Shaelyn Strattan.

No, there is not.

HEARING OFFICER CELLI: Okay. There is no no-fly zone over the MEP.

MR. SINGH: Even for the gliders.

MS. STRATTAN: Shaelyn Strattan.

That's correct.

MR. SINGH: Okay. Thank you, sir. That is what I have all the questions.

HEARING OFFICER CELLI: Thank you, Mr. Singh.

Sierra Club, any questions of staff regarding aviation --

MR. CARLTON: No questions.

HEARING OFFICER CELLI: No questions. Thank you, Mr. Carlton.

Mr. Simpson, any questions for staff regarding aviation?

MR. SIMPSON: Just a few.

CROSS-EXAMINATION

MR. SIMPSON: In the East Shore proceeding, I believe you objected to the Kate Stone report; is that correct?

MS. STRATTAN: Shaelyn Strattan.

No, I don't believe we objected to the Kate Stone report, to the entrance of that into evidence.

MR. SIMPSON: Oh, I don't know if it was the entrance into evidence, but the substance of matter of the report, did you have objections to the substance of matter?

MR. WHEATLAND: Objection; asked and answered.

HEARING OFFICER CELLI: Hold that objection one second.

Lynn, are you able -- is this all coming across? Okay. Because Mr. Simpson --

(Comment beyond microphone range.)

HEARING OFFICER CELLI: Thank you. I'm having a hard time hearing you. Can you pull your mic a little closer to your mouth, see if that helps.

MR. SIMPSON: Yes.

HEARING OFFICER CELLI: Thank -- what you just

said was great, I could hear you. So I -- that was a little garbled for me, and I didn't get the question. So I need to hear from Mr. Simpson again, the question.

MR. SIMPSON: There was a report, an Australian report in East Shore Energy Center, and I believe staff had objections to the substantive matter of that report; and I'm trying to understand the difference between that report in that proceeding and --

MR. WHEATLAND: And I object on the basis of relevance and --

HEARING OFFICER CELLI: Well, let me ask this: Is this report, the Australian report -- an Australian report did I hear you say?

MR. SIMPSON: Yes.

HEARING OFFICER CELLI: The Australian report was offered in East Shore. Is it offered in the Mariposa case?

MR. SIMPSON: I thought it was referenced --

MR. WHEATLAND: If I could, Hearing Officer Celli, there is a methodology for analyzing the effect of thermal plumes that has been developed by a company in Australia called Kate Stone. And there was a specific study that was done to model the effect of thermal plumes from the East Shore plant in the East Shore proceeding using that same methodology. A separate analysis was

performed using the Kate Stone methodology for the Mariposa Energy Project. It was not the same study. It's a new study, but using the same methodology.

HEARING OFFICER CELLI: And so getting back to your question, which was did staff object to the use of the Australian report in East Shore; was that your question?

MR. SIMPSON: Yeah. I believe there was substantive matters of the report in the East Shore proceeding that they objected to that they don't seem to have an issue with in this proceeding. I'm trying to understand why the methodology --

HEARING OFFICER CELLI: You know what, I'm going to ask --

MR. SIMPSON: -- is acceptable there and not here, and vice versa.

HEARING OFFICER CELLI: You know, I'm going to -- I'm going to sustain the objection and I'm going to ask that if we can keep the focus on what staff's done in the Mariposa case, it would be a lot easier for the Committee, because this obviously wasn't the same Committee as was the East Shore Committee, that was a different Committee. So rather than relitigate East Shore, let's get on with Mariposa.

MR. SIMPSON: Did you analyze the report from

Kate Stone in regards to this proceeding?

MS. STRATTAN: Shaelyn Strattan.

Kate Stone did not supply a report for this proceeding. There is a method that was advocated by Kate Stone, there's also what's called the Spillane method.

I am not a modeler, that would be Mr. Walters who could answer specifics on that project, and also, on the analysis for this project.

But the Kate Stone did not provide, to my knowledge, did not provide a report for this specific project.

MR. SIMPSON: Oh, thank you. Is Mr. Walters going to testify?

MS. KOCH: Andrea Koch.

No, he wasn't available today.

MR. SIMPSON: I see.

Do you both agree that a plume could be a hazard?

MS. KOCH: Under certain circumstances and conditions, a plume could potential pose a turbulence hazard to aircraft doing a direct overflight.

MS. STRATTAN: Shaelyn Strattan.

I concur.

MR. SIMPSON: Is a surface -- or does a plume have a surface?

MS. STRATTAN: Shaelyn Strattan.

A plume has a diverse general parameter; but as far as a surface, are you suggesting that it is an object?

MR. SIMPSON: Yes.

MS. STRATTAN: It has not been defined as an object by the FAA, although it is under consideration as far as the impacts are concerned, it is not considered an object by the FAA, not a physical structure.

MR. SIMPSON: But does staff consider it an object?

MS. STRATTAN: Shaelyn Strattan.

No.

MR. SIMPSON: Did you look at all at the effects of diminished air quality on planes operations; for instance, will they increase carbon dioxide, interfere with a plane's function?

MS. KOCH: Andrea Koch.

Let me look at my notes.

HEARING OFFICER CELLI: So the question is did they analyze whether decreased --

MR. SIMPSON: Increased carbon dioxide reduces the plane's ability to operate.

HEARING OFFICER CELLI: Okay.

If you know.

MS. KOCH: Andrea Koch.

I did speak with Will Walters about that, and he

had no concern about the oxygen and various chemical components of the plume. He stated that it would not present a hazard to aircraft.

MR. SIMPSON: Okay. Do you know how many students fly out of the Mariposa airport?

MS. STRATTAN: Shaelyn Strattan.

I believe that's classified information.

MR. SIMPSON: Really. Okay.

Do old-style boiler plants have a different plume velocity than these newer turbine?

MR. WHEATLAND: Objection; relevance.

HEARING OFFICER CELLI: Sustained.

MR. SIMPSON: Does the FAA issue a NOTAM for the comfort of passengers or for safety?

MS. STRATTAN: Shaelyn Strattan.

NOTAMs are generally issued for safety or as an advisory to pilots to avoid certain areas because of activity in the area.

MR. SIMPSON: Did you do any study of -- we participated in Hayward. And part of the issue was that when moving the planes from that location, it created potential effects where the planes had to fly in a different location. So when -- would not allowing flyovers in this location, does it put planes in a more populated area, does it create an impact somewhere else?

MS. KOCH: Andrea Koch.

No. The Mariposa Energy Project would not move flight patterns or approach or departure zones, so it would not reroute planes in a significant way.

MR. SIMPSON: Thank you.

Did Byron Airport agree with your conclusions?

MS. KOCH: Andrea Koch.

The Byron Airport didn't provide us with any sort of general opinion on our conclusions to my knowledge.

MR. SIMPSON: Have you received anything from the Byron Airport or land use Committee? Am I saying the wrong word here?

HEARING OFFICER CELLI: Or any -- let me ask this: Did you receive any comments from the Byron Airport on the S.S.A.?

MS. KOCH: Andrea Koch.

Let us look through our analysis quickly.

HEARING OFFICER CELLI: Isn't that what you wanted to know, Mr. Simpson, whether they had commented on the S.S.A.?

MR. SIMPSON: I think the land use commission comment is what I'm trying to get to, yes.

MS. KOCH: Andrea Koch.

We did receive comments from Keith Freitas, director of airports for Contra Costa County, but we did

not receive any comments from Byron Airport representatives.

MR. SIMPSON: So is that the airport land use commission? Am I saying the right words here?

MS. KOCH: Andrea Koch.

No, you weren't asking about the airport land use commission.

MR. SIMPSON: Okay. So you received comments; and did you consider those comments in the S.S.A., supplemental staff assessment?

MS. KOCH: Andrea Koch.

Yes, we did. We responded to all of them in the comment section of the report.

MR. SIMPSON: Thank you. No further questions.

HEARING OFFICER CELLI: Thank you, Mr. Simpson.

Go ahead, Mr. Wheatland.

MR. WHEATLAND: No questions.

HEARING OFFICER CELLI: No questions.

Any redirect by staff?

MS. WILLIS: None.

HEARING OFFICER CELLI: Any evidence that staff would like to move in at this time?

MS. WILLIS: I believe we moved it all in yesterday.

HEARING OFFICER CELLI: Okay. My recollection is

that there was more than just 30- -- 300 through 302, wasn't there? Or am I confusing you with another case?

MS. WILLIS: That's all we have is just 300, 301, and 302 was the FDOC.

MR. SARVEY: Mr. Celli.

HEARING OFFICER CELLI: Mr. Sarvey, you had a question?

MR. SARVEY: Yeah. I didn't know Mr. Walters wasn't going to appear here, so I would like to object to his testimony since I wasn't given the ability to cross-examine him.

MS. WILLIS: Just to be fair, during the prehearing conference nobody expressed any interest in the plumes, and the only thing that I wrote for Mr. Sarvey and Mr. Singh was air traffic. That's all that was identified in their prehearing conference. There wasn't any -- there wasn't any questions about plumes brought up at the conference or in the prehearing conference statements; and, unfortunately, the dates of the hearings were changed, and Mr. Walters was unable to be here.

HEARING OFFICER CELLI: Mr. Walters is generally the plume analysis guy with regard to air quality; is that right?

MS. WILLIS: He generally does the plume analysis for this section, if there's air traffic.

HEARING OFFICER CELLI: So there was a section of the traffic and transportation dealing with aviation that was written by Mr. Walters; is that correct?

MS. WILLIS: You can address how you --

HEARING OFFICER CELLI: Try the other one. You've got to turn both on. They're Siamese twins mics.

MS. KOCH: Andrea Koch.

Mr. Walter's testimony was an appendix to our analysis, appendix TT-1, plume velocity analysis.

HEARING OFFICER CELLI: Thank you. We're going to go off the record for a moment.

(Discussion off the record.)

HEARING OFFICER CELLI: Is Mr. Walters still working for the Energy Commission?

MS. WILLIS: I don't have exact information on that. I'm assuming -- I think he's just on vacation this week. Our witnesses were prepared to be here on the 7th and the 8th of the original schedule, and then when it was moved, our two Aspen contractors were unavailable.

HEARING OFFICER CELLI: So he's on vacation or something like that?

MS. WILLIS: Yes. He could probably be available. I mean, I can't commit for him right now, but on the 7th, if we wanted to hold this issue open for then.

HEARING OFFICER CELLI: Okay. I would ask

staff -- at this time the Commission would ask staff to make Mr. Walters available on the 7th.

We are all going to be very busy. Bring your toothbrush on the 7th, folks, because this could be a long day the way things are going. We need to get -- we need to get a lot done.

MR. WHEATLAND: Could we go back -- are we back on the record?

HEARING OFFICER CELLI: I'm sorry?

MR. WHEATLAND: Are we back on the record?

HEARING OFFICER CELLI: We are on the record. I don't think we ever went off the record.

How long have we been off the record?

THE REPORTER: We're on.

HEARING OFFICER CELLI: Okay. Did we lose anything?

THE REPORTER: No. You went off and then -- we're back.

HEARING OFFICER CELLI: Thank you.

Just to be clear, we're back on the record, and we are talking about obtaining Mr. Walters as a witness for cross-examination.

MR. WHEATLAND: I would say though, for the record, and I have no problem with Mr. Walters being available at a future date, but the rules that the

Committee set up in the prehearing conference order were very clear. And that was for the parties to identify with specificity the areas that were in dispute.

And Mr. Sarvey, in his prehearing conference statement, didn't say anything about plumes. He said the project does not meet LORS, the project impacts the Byron Airport, and the Byron Airport Land Use Commission has certified it does not meet its LORS. And there's nothing in there about plumes or other issues that would have given staff notice of the need to make that available.

Mr. Simpson, I need to remind the Committee, when he was asked to identify the topic areas that he desires to cross-examine on, he says, "I join the other intervenors in the topics that I wish to cross-examine and their summary of the scope."

HEARING OFFICER CELLI: Well, this is Mr. Sarvey's motion.

MR. WHEATLAND: But -- but -- but what's going on here is we're having extensive cross-examination by parties that, one, did not identify with specificity the topic areas that were in dispute; two, did not identify with specificity the areas that they would cross-examine; and three, in the case of Mr. Simpson, didn't even provide a cross-examination estimate. And we've had now endless hours of cross-examination by parties that didn't follow

the Committee's only rules in preparing their prehearing conference statements.

MR. SIMPSON: We certainly didn't think that the -- that the plant would be shooting the planes out of the air; we expected that it would be the plume would be the impact to the airport.

HEARING OFFICER CELLI: So we're -- the Committee is going to ask staff to make Mr. Walters available on the 7th. And maybe, Mr. Sarvey and Mr. Simpson and anyone else who's interested, if we can move with alacrity through the rest of the evidence, we might even be able to get to Mr. Walters on the 7th. So let's use our time wisely.

So, with that, is there anything further on aviation traffic and transportation?

Mr. Sarvey?

MR. SARVEY: Nothing further.

HEARING OFFICER CELLI: Mountain House?

MR. GROOVER: Nothing further.

HEARING OFFICER CELLI: Mr. Dighe, anything further on aviation traffic and transportation?

Mr. Wilson, anything further on aviation, or traffic and transportation?

MR. WILSON: Just a clarification. Transportation is transportation with a breakout of

aviation. We've been talking about just aviation, so transportation aviation, no.

HEARING OFFICER CELLI: Thank you.

Mr. Singh, anything further?

MR. SINGH: No.

HEARING OFFICER CELLI: Thank you.

Sierra Club California?

MR. CARLTON: No.

HEARING OFFICER CELLI: Thank you.

Mr. Simpson?

MR. SIMPSON: No, sir.

HEARING OFFICER CELLI: Thank you.

Mr. Wheatland, go ahead.

MR. WHEATLAND: I'd like to move the applicant's exhibits on traffic and transportation.

HEARING OFFICER CELLI: Oh, yes. Applicant's motion.

MR. WHEATLAND: And as set forth in the applicant's exhibit list by topic, I'd like to move Exhibits 1, 4, 5, 6, 7, 11, 15, 16, 35, 38, 61, and 68.

HEARING OFFICER CELLI: There's a motion to receive into evidence Exhibits 1, 4, 5, 6, 7, 11, 15, 16, 35, 38, 61, and 68. Is there any objection from staff?

MS. WILLIS: None.

HEARING OFFICER CELLI: Any objection from

Mr. Sarvey?

MR. SARVEY: None.

HEARING OFFICER CELLI: Mr. -- Mountain House, any objection?

MR. GROOVER: None.

HEARING OFFICER CELLI: Mr. Dighe, any objection?

MR. DIGHE: None.

HEARING OFFICER CELLI: Mr. Wilson, any objection?

MR. WILSON: None.

HEARING OFFICER CELLI: Any objection, Mr. Singh?

MR. SINGH: No.

HEARING OFFICER CELLI: Sierra Club, any objection?

MR. CARLTON: No.

HEARING OFFICER CELLI: Mr. Simpson, any objection?

MR. SIMPSON: I have no objections.

HEARING OFFICER CELLI: Okay. Then those exhibits are received into evidence at this time.

(Whereupon, Applicant's Exhibits 1, 4, 5, 6, 7, 11, 15, 16, 35, 38, 61, and 68 were received into evidence.)

HEARING OFFICER CELLI: We are closing the record on the area of traffic and transportation and aviation.

MR. WILSON: Excuse me. There's traffic and transportation aviation, but we still haven't made comments on transportation. So could you -- we started with transportation aviation --

HEARING OFFICER CELLI: Okay.

MR. WILSON: So we're done with transportation aviation, there's still open issues with transportation. That would --

HEARING OFFICER CELLI: And I don't recall any discussion about -- are you talking about like things like levels of service of the streets --

MR. WILSON: That's correct.

HEARING OFFICER CELLI: -- the power plant?

And was that raised at the prehearing conference?

MR. WILSON: Because up until now, because transportation is typically titled as traffic and transportation. During this hearing, there's been traffic -- excuse me, traffic and transportation aviation, and that's what we've been talking up until now.

HEARING OFFICER CELLI: Right.

MR. WILSON: So I would ask the chair and also Mr. Wheatland, was transportation accepted as no arguments or --

MR. WHEATLAND: I specifically stated this morning that when we put our panel on, they were

testifying both to aviation and to the general traffic and transportation matters, and we had a witness here that was specifically here to address those matters.

HEARING OFFICER CELLI: So you didn't ask any questions about traffic and transportation of that panel; they were there.

MR. WILSON: We -- I understand what Mr. Wheatland just said, but -- aviation.

HEARING OFFICER CELLI: That's right. Doesn't it show that traffic and transportation is not in dispute?

So according to the prehearing statements, the only people who had any issues with regard to traffic and transportation, in specific, aviation, were the applicant, staff and Cal Pilots. And the assumption we've always been operating under and the discussions we've always had always had to do with aviation, not traffic and transportation, and I mean roads and that sort of thing.

So that is what was in dispute, was the aviation part of it.

California Pilots.

MR. WILSON: That's what I just -- I'm asking for the clarification. And was transportation accepted as --

HEARING OFFICER CELLI: Yes.

MR. WILSON: -- because the term --

HEARING OFFICER CELLI: Let's put it this way:

The applicant moved in the set of records that I just stated. The staff put in their evidence, which was Exhibit 301 on traffic and transportation. Traffic and transportation encompassed aviation, but it's the entire package. It also discusses, you know, levels of service of the road and things like that. And so that is the entire -- we're closing that entire record at this time. So I hope that's clear with everyone. We never talked about two-dimensional travel in it. We are strictly talking about three-dimensional travel.

So with that, the record is closed on traffic and transportation. We're now going to move on.

MR. WHEATLAND: Mr. Celli?

HEARING OFFICER CELLI: Mr. Wheatland.

MR. WHEATLAND: I'd just like to have a discussion of the schedule for the remaining of this day and to remind the Committee that I mentioned earlier that we have a witness who has come here from Houston to --

HEARING OFFICER CELLI: Is he here now?

MR. WHEATLAND: He's here today, yes.

HEARING OFFICER CELLI: Well, let's call him and get him up here.

This is -- ladies and gentlemen, let's make -- I want to say that when we created the hearing order, at the time we had taken under submission the question of

hazardous materials you may recall. And we hadn't ruled on it yet. We have since ruled that hazardous materials, as raised by Mr. Sarvey, will -- we would take evidence and testimony on it.

Now we're going to hear from a hazardous materials witness, and this is in regards to, Mr. Wheatland, the pipeline question, or does this go beyond the pipeline question, Mr. Wheatland?

Mr. Wheatland, excuse me, can I ask a question?

This witness's testimony on hazardous materials, does this go beyond the pipeline, or is this limited to the pipeline question?

MR. WHEATLAND: Just the pipeline.

HEARING OFFICER CELLI: Okay. So normally -- am I still on the air? Okay.

Normally I would like to take one subject at a time and finish it off as we've been doing up until now, but we're going to accommodate the witness who flew in from Houston for the applicant. We're going to take his testimony. And then we're going to take the rest of the hazardous materials testimony on the 7th, because today I want to get to socioeconomics. So let's take care of this hazardous materials right away.

Go ahead, Mr. Carlton.

MR. CARLTON: With regard to the schedule today,

we're going to go till 5:00 and then public hearing?

HEARING OFFICER CELLI: Right. And really I don't -- I don't anticipate going beyond that after the public comment unless we absolutely have to.

But I do want to make an observation.

Have a seat, sir.

I just want to say that I hope everybody appreciates that this Committee has really tried to provide an opportunity and a forum for a fair hearing so everybody can be heard, everybody can ask the questions they want to ask, and in so doing, we have set ourselves back on the schedule by a day. And it looks like we may even have to add another day unless I can get everything done on Thursday, which seems highly unlikely.

So I'm going to ask the parties to revisit -- if I could have it quiet in here, please. Everyone in the audience. I need your attention.

I'm going to ask the parties to work together to see, as you did last night, and I greatly appreciate that the parties stipulated to certain witnesses' testimony coming in, take a look, revisit the question, work together, and see if there are areas that we could just accept in by stipulation on the written testimony and rebuttal without further direct. See what else we can do to stipulate, maybe settle issues if you can, because

we're really trying to accommodate everybody, and it's costing us. And we just -- we just can't keep going on like this.

So with that, that's my request to the parties.

Go ahead, Mr. Simpson.

MR. SIMPSON: I do appreciate that it appears that we're getting a fair hearing. And we're trying to expedite our questions. But in the briefing schedule, it's pretty tight for the amount of information that's coming in.

HEARING OFFICER CELLI: Yeah, and that's -- I'm glad you raised that, because I discovered -- this is sort of funny. I said at the prehearing conference that what we do is we get our transcripts in three days. Well, that turns out that that was a -- that was a holdover from the good old ARRA days of the summer when we were getting our transcripts in three days because everything was rush, rush in order to meet that ARRA deadline. That is no longer the case. I have no idea how long it's going to take us to get a transcript, but once we do, what I wanted to do was pretty much keep that ten-day and seven-day time frame.

So I can't say that we're going to get a transcript in three days; we're going to get them whenever we get them. But I think that after we get the

transcripts, between the closing of the -- Mr. Simpson, when we close our evidence, you pretty much know what the issues are and you pretty much know what's going to go in your brief at that time anyway. I'm going to ask that you start working on that and be prepared to file your brief ten days after they come out. And the odds are they're probably going to come out somewhere between like six days and a week or two weeks after the hearing. That's the way it looks to me.

MR. SIMPSON: I'm pretty sure I can ask less questions if I had more time to brief, but if I need to flesh out the issues here more, it's sort of a balancing act.

HEARING OFFICER CELLI: Okay. So, Mr. --

MR. SINGH: May I request no electronics items with the witnesses?

(Discussion beyond microphone range.)

HEARING OFFICER CELLI: Those are his notes. It's okay.

MR. SINGH: But there could be -- I am also instant messenger; people can instant messenger and give --

MR. de LEON: I'll keep my hands off my keyboard.

HEARING OFFICER CELLI: I'll tell you what, let's -- let me do this: Mr. Leon -- is it de Leon?

You should stand up. I'm going to have you sworn in a minute.

We're going to ask that you specifically don't text or chat with anybody during your testimony and that you use your computer for nothing other than referring to your notes.

MR. de LEON: I'm sorry. Repeat that, please.

HEARING OFFICER CELLI: I know it seems an unusual request, but we're going to ask that you not use your computer in any way to communicate with anybody outside the building or in the building. You can use your computer for your notes. One of the intervenors expressed a concern; they're worried that people will be sending you e-mails with answers. So in order to avoid that, we're asking that you not e-mail or chat with anybody using your computer.

Is that clear?

Mr. Wheatland, did you expect to chat with people or perhaps --

MR. WHEATLAND: I don't even think he has an idea --

(Conversation beyond microphone range.)

HEARING OFFICER CELLI: All right. Mr. Harris, have a seat.

Mr. Petty, if you could -- Mr. de Leon, please

stand to be sworn.

(Witness sworn.)

THE REPORTER: Would you please state and spell your name for the record.

MR. de LEON: Cesar de Leon. C-e-s-a-r, space, little D, little E, space, capital Leon.

THE REPORTER: Thank you.

HEARING OFFICER CELLI: Your witness.

MR. HARRIS: Thank you.

DIRECT EXAMINATION

MR. HARRIS: I'll try to speak loud, Cesar, so you can hear me. I'm hard of hearing in this room. I think everybody is.

HEARING OFFICER CELLI: Mr. Harris, I want to just say that for the record, up until now the applicant was represented by Mr. Wheatland, and we're on the telephone, and people are trying to figure out what's going on by people's voices. So please introduce yourself and then go ahead.

MR. HARRIS: Okay. I am not Mr. Wheatland who's been hoarse from talking today. I am Jeff Harris. I'm counsel for the applicant. And hopefully you'll be able to hear me. I'll hold this very close.

HEARING OFFICER CELLI: Very good.

MR. SIMPSON: If you could be farther from the

microphone and louder, it gets less echo it seems.

MR. HARRIS: Farther back. Okay. All right. I'm going to start with a song then.

All right. We're going to start down through the litany, if you can hear me all right.

Cesar, what subject matter testimony are you here to sponsor today?

MR. de LEON: Hazardous material handling, specifically pipeline safety issues.

MR. HARRIS: And were the documents that you sponsored as part of your testimony previously identified in your pre filed testimony?

MR. de LEON: Yes.

MR. HARRIS: And that would be Exhibit --

(Conversation beyond microphone range.)

MR. de LEON: Can you hear me now?

THE REPORTER: Yes.

MR. HARRIS: Okay. So that's Exhibit 68, applicant's rebuttal testimony on aviation, hazardous material handling, dated February 14th.

Do you have any changes, corrections, or clarifications to your testimony?

MR. de LEON: No.

MR. HARRIS: And were the documents prepared either by you or at your direction?

MR. de LEON: Yes.

MR. HARRIS: And are the facts stated therein true to the best of your knowledge?

MR. de LEON: Yes.

MR. HARRIS: And are the opinions stated therein your own?

MR. de LEON: Yes.

MR. HARRIS: And do you adopt it as testimony for this proceeding?

MR. de LEON: Yes.

MR. HARRIS: Okay. I got through the tough part now.

So, Cesar, can you please briefly summarize your qualifications on pipeline issues for the Committee.

HEARING OFFICER CELLI: Before he does, do we have his resume on file?

MR. HARRIS: His resume is attached to Exhibit 68 as part of the -- as was his declaration.

HEARING OFFICER CELLI: Well, we're just going to assume he's an expert. We will rely on his resume.

Let's move on because we need to get to it.

MR. HARRIS: Okay. All right. Then would you like him to summarize his testimony, or should I just make him available for cross-examination?

HEARING OFFICER CELLI: Can you -- let's -- give

it to me like this: He's testifying about pipeline safety; in particular, what?

MR. HARRIS: In particular about the pipeline, the interconnection for this project. He's an expert, his resume shows, in pipeline safety, was in charge of the national program for pipeline safety and also in charge of the interrelationship between the PUC as a state delegatee and the Department of Energy.

HEARING OFFICER CELLI: So his testimony relates to the safety of the interconnection between the MEP proposed pipeline and this Line 002?

MR. HARRIS: Correct. And his testimony is offered in rebuttal to the testimony of Mr. Sarvey.

HEARING OFFICER CELLI: Which we've received -- or has been offered into evidence as Exhibit 68?

MR. HARRIS: Yes. So like most everything else in this proceeding, it's already in the record. And I think at this point I'm just going to make him available for cross-examination.

HEARING OFFICER CELLI: Thank you. That's exactly what I wanted to get to.

MR. HARRIS: I'm slow, but I'm finally getting there. Thank you.

HEARING OFFICER CELLI: Staff, any questions for Mr. de Leon?

MS. WILLIS: We don't have any questions.

HEARING OFFICER CELLI: Thank you.

Mr. Sarvey, questions for Mr. de Leon?

MR. SARVEY: Yes. This will all be Exhibit 68 these questions will be originating from; so if I cite a page number, it's Exhibit 68.

HEARING OFFICER CELLI: Thank you.

(Conversation beyond microphone range.)

MR. HARRIS: Oh, hang on. Do you have a copy of your prefiled testimony, Exhibit 68?

MR. de LEON: Yes, I do.

MR. HARRIS: Okay. Bob's questions are going to be related to that exhibit.

MR. de LEON: Let me find it. Just a minute.

Okay. Go ahead.

HEARING OFFICER CELLI: Mr. Sarvey.

CROSS-EXAMINATION

MR. SARVEY: Mr. de Leon, on page 6 of your testimony you state that there's no prohibition in section 192.461, external corrosion control protective coating to the double taped wrap coating; is that correct?

MR. de LEON: That's correct.

MR. SARVEY: And what is the current industry standard for protective coating on natural gas pipelines?

MR. de LEON: The current one?

MR. SARVEY: Yes.

MR. de LEON: The current one is to use a sprayed-on epoxy.

MR. SARVEY: So this is no -- well, that's okay, you answered the question. I'm sorry.

Mr. de Leon, you've been quoted in the paper, in the newspapers, saying, "Mr. de Leon said he was heartened that federal officials had recently pressed California regulators for more inspectors. A good enforcement program requires inspections. He said not having enough inspectors is not a good way to run a program."

MR. HARRIS: Hey, Bob, do you have a copy of that document for the witness to look at that you're reading from?

MR. SARVEY: No, I don't.

MR. HARRIS: Is it part of your testimony?

MR. SARVEY: This is part --

HEARING OFFICER CELLI: It was --

MR. SARVEY: It's publicly made statements in the newspaper.

HEARING OFFICER CELLI: Let me make -- I want to make one thing clear. This is a formal evidentiary hearing, all of the communications are directed to the Committee. If you have a request, then you ask us, we'll ask Mr. Sarvey. I'm trying to avoid cross-talk between

the parties.

MR. HARRIS: I'm sorry. I'm familiar with Mr. Sarvey, and maybe too much. So I apologize.

HEARING OFFICER CELLI: So you want to know whether --

MR. HARRIS: Could the witness have a copy of what he's reading from?

HEARING OFFICER CELLI: I remember reading this. Was this part of your testimony, Mr. Sarvey, which was Exhibit 4- -- I can't remember which one this was. But I believe --

MR. SARVEY: No, it's not.

HEARING OFFICER CELLI: Then where did we read it from before?

MR. SARVEY: You read it in my brief.

HEARING OFFICER CELLI: In your brief.

MR. SARVEY: On my pipeline brief. It was in there.

HEARING OFFICER CELLI: There you go. So if you took a look at Mr. Sarvey's brief, he's going to be reading from the brief.

So Mr. Sarvey is quoting an excerpt from -- was this the "San Francisco Chronicle"?

MR. SARVEY: I think it was the "Bay Citizen," I believe it was.

HEARING OFFICER CELLI: The "Bay Citizen." Okay.

MR. SARVEY: So --

HEARING OFFICER CELLI: If you can -- I'm sorry for the interruption. If you want to go ahead and ask your question, Mr. Sarvey.

MR. SARVEY: Have you been quoted in the newspaper saying California has not had enough inspectors over the last several decades?

MR. de LEON: That's what the newspaper said.

MR. SARVEY: Pardon me?

MR. de LEON: That's what the newspaper said.

MR. SARVEY: Is that an accurate quote?

MR. de LEON: Not exactly, but -- it's not exactly an accurate quote.

MR. SARVEY: Okay. Have you reviewed the pigging results on Line 002 that I provided to the applicant?

MR. de LEON: The Tetretec report?

MR. SARVEY: No, the pigging results, the pigging tapes.

MR. de LEON: No, I did not, I did not review the pigging.

MR. SARVEY: So you're not aware of the current condition of pipeline 002?

MR. de LEON: I'm aware of what -- of what the pig results were.

MR. SARVEY: In your testimony on page 5 you cite a study by John Kiefner and Michael Rosenfeld about pressure cycles on natural gas pipelines. The study examines the effects of cycling on seam defects but does not examine the effects of cycling on corroded pipeline materials, damaged pipelines, or pipelines with wrinkle bends. Is that not correct?

MR. de LEON: That's correct.

MR. SARVEY: And what percentage of pipeline failures are caused by seam defects?

MR. de LEON: I don't have those figures in hand. I could look it up, but --

MR. SARVEY: Could you -- do you have a ballpark? Ten, fifteen percent?

HEARING OFFICER CELLI: While you're thinking of that question --

MR. de LEON: I don't think I want to give a ballpark figure.

HEARING OFFICER CELLI: Let me ask, Mr. Sarvey, did you say "C and D defects"?

MR. SARVEY: Seam defects.

HEARING OFFICER CELLI: Seam defects. I'm sorry. It's hard to hear.

Go ahead, Mr. de Leon.

MR. de LEON: Yeah, I don't want to give a

ballpark figure, I don't know exactly.

MR. SARVEY: On page 5 of your testimony you further state the conclusion of the Keifner and Rosenfeld report was further endorsed serving as the basis for the conclusions in the letter from the Pipeline Hazards and Safety Materials Administration to the National Safety Transportation Safety Board dated August 10th, 2009.

The letter you cite from the Pipeline and Hazardous Materials Safety Administration actually only examines the possibility of seam failure from transportation of pipe and impacts from cycling of natural gas on those seamed defects. Is that not correct?

MR. de LEON: Repeat that question.

MR. SARVEY: I said the letter that you cite from the Pipeline and Hazardous Materials Safety Administration actually only examines the possibility of seam failure from transportation of pipes. Is that not correct?

MR. de LEON: It examines -- it examines those failures, but it concludes that there were no failures from manufacturing-related defects.

MR. SARVEY: For seams, that's correct.

MR. de LEON: From seams.

MR. SARVEY: Seams only. Thank you.

On page 6 of your testimony, you state, "At the end of the third paragraph Mr. Sarvey's testimony raises

concerns about the presence of three pipelines in this one pipeline corridor triples the consequences of a failure of Line 002. This is speculation. There's no support for Mr. Sarvey's perception of increased risk from PG&E pipeline being adjacent to other pipelines."

MR. de LEON: That's what I said, yes.

MR. SARVEY: Mr. de Leon, have you had an opportunity to examine my Exhibit 413, PG&E; it's entitled "PG&E Risk Management Annual Report," page 300?

MR. HARRIS: Mr. Celli.

HEARING OFFICER CELLI: Yes.

MR. HARRIS: Can Mr. Sarvey clarify, is that the e-mail from PG&E that you're referring to?

HEARING OFFICER CELLI: Yes. Mr. Sarvey, we have -- Exhibit 413 is an e-mail from Alan Eastmon sent Thursday, February 22nd. It's two pages.

MR. SARVEY: That is correct.

HEARING OFFICER CELLI: Is that what you're referring to?

MR. SARVEY: Pardon me?

HEARING OFFICER CELLI: Is that what you're referring to or --

MR. SARVEY: There's actually five pages to it, but --

HEARING OFFICER CELLI: Attached is a summary.

MR. SARVEY: Right. The summary is what I'm referring to.

It would be PG&E page 300.

MR. HARRIS: Can we provide the witness with a copy if he doesn't have one?

MR. SARVEY: I can give him this right here.

HEARING OFFICER CELLI: If you wouldn't mind handing -- coming around and handing that to the deputy.

Thank you, Deputy.

MR. de LEON: No, I have not seen this before.

MR. SARVEY: Okay. And your testimony, it says that you examined 413; is that incorrect?

MR. de LEON: I examined Alan Eastmon's --

MR. SARVEY: Exhibit 413.

MR. de LEON: I said I examined Alan Eastmon's e-mail.

MR. SARVEY: Okay. Well, let me read to you what it says here.

Exhibit 413, PG&E, page 300, paragraph 5 states: "Seven five miles of L-002 were selected because of cathodic protection interference and the potentially large failure consequences from oil pipelines in close vicinity to the pipeline."

Have you read that portion of the exhibit?

MR. de LEON: Are you reading from what I was

just handed?

MR. SARVEY: Yes, I am.

MR. de LEON: Where are you in there?

MR. SARVEY: Paragraph five, first sentence.

MR. de LEON: Paragraph five. Okay.

MR. HARRIS: Excuse me. I'm trying to follow along, Mr. Celli, and I don't see that language on paragraph five of Exhibit 413.

HEARING OFFICER CELLI: I do. Let me tell you what we're looking at. We're looking at Exhibit 413.

MR. HARRIS: 413. Okay. This is the e-mail from Mr. Eastmon, and I don't see the language Mr. Sarvey just read.

HEARING OFFICER CELLI: The exhibit is, as I have it, is the cover page, there's a two-page -- really a page-and-a-half e-mail --

MR. HARRIS: Yeah, poorly copied e-mail, yeah.

HEARING OFFICER CELLI: The third page at the top says, looks like a page from a book, says, "Risk Management Annual Report-2000." And then there's the heading "Summary."

MR. HARRIS: Okay. I think -- I think I know -- I thought Mr. Sarvey said fifth paragraph of the e-mail; it's fifth paragraph of the summary page.

Is that correct, Mr. Sarvey?

MR. SARVEY: That's correct.

HEARING OFFICER CELLI: The fifth paragraph starts, "L-002 smart pigging," and it contains one paragraph's worth of language. So he's looking at that now.

Mr. de Leon, are you looking at the fifth paragraph of the document which has been identified as Exhibit 413? Fifth paragraph of that document?

MR. de LEON: You want me to read it? Is that what you want me to do? I hadn't seen it before, but you want me to read it?

HEARING OFFICER CELLI: Yes.

MR. de LEON: Okay. I read it.

MR. SARVEY: Do you have any idea how many significant incidents California's had in the last ten years?

MR. de LEON: I read that in your -- in your -- one of your reports. I didn't commit it to memory. If I can remember, there have been 22 in the last 15 years or something to that effect. That is right?

MR. SARVEY: Actually, it says from 2000 to 2009 California averaged 11 significant incidents a year, about 1 per 10,000 miles of pipeline.

MR. de LEON: Yeah, I read all that, yes.

MR. SARVEY: What is a significant incident,

Mr. de Leon?

MR. de LEON: It's an incident that results in a fatality, and in-patient hospitalization, or $50,000 damage.

MR. SARVEY: And in your testimony you state that the chance of being killed by a pipeline explosion is one in one million?

MR. de LEON: That's correct.

MR. SARVEY: Uh-huh. And since I provided you statistics, do you think that's the same likelihood in the State of California?

MR. de LEON: That was an actual -- that's the national figure. I didn't run it for the State of California, but I would imagine if you have 21,000 miles of gas transmission lines, that would be -- I don't know. With San Bruno it would probably be -- maybe it would not be that much, but I think it would be close to that.

MR. SARVEY: Have you seen Table 3.1 in my testimony, "California Natural Gas Transmission Lines Significant Incident Rate"?

MR. de LEON: Yes, I saw that.

MR. SARVEY: And it has a column there for deaths. And can you tell us what the incidence per mile per year it says in that table?

MR. de LEON: I don't recall.

MR. SARVEY: Does 1.6 in a hundred thousand sound accurate?

MR. de LEON: I don't recall.

MR. SARVEY: I think that's all I have for Mr. de Leon.

Thank you, sir.

HEARING OFFICER CELLI: Thank you, Mr. Sarvey.

Any questions from Mountain House?

MR. GROOVER: No.

HEARING OFFICER CELLI: Thank you.

Mr. Dighe, any questions of this witness?

MR. DIGHE: One question.

HEARING OFFICER CELLI: Please.

CROSS-EXAMINATION

MR. DIGHE: When you did the risk analysis of the Line 02, did you consider the current condition of the pipeline?

MR. de LEON: Would you repeat that, please?

MR. DIGHE: When you did the risk analysis of the Line 002, did you consider the current conditions of the pipeline?

HEARING OFFICER CELLI: When you did the analysis, the risk analysis of Line 002, did you consider the current condition of the pipeline?

MR. de LEON: When I did the analysis on Line 2,

did I consider what?

HEARING OFFICER CELLI: The current condition of the pipeline. Current condition of the pipeline.

MR. de LEON: Where is my analysis of Line 2? In my report, is the analysis of Line 2 in this report?

MR. DIGHE: Did you do the analysis on Line 002?

MR. de LEON: I did an analysis of the national figures, I don't think I -- this report --

HEARING OFFICER CELLI: Mr. Dighe, what exactly are you referring to? Do you have a document that you're referring to?

MR. de LEON: What document are you referring to?

MR. DIGHE: So I think the gas pipeline, Line 002, which was discussed right now, so I'm just asking that -- did he do the risk analysis for the Line 002.

HEARING OFFICER CELLI: Did you do -- did you do a risk analysis specifically for Line 002?

MR. de LEON: No.

HEARING OFFICER CELLI: Okay. There's your answer.

MR. DIGHE: Thank you.

HEARING OFFICER CELLI: Thank you.

Mr. Singh, did you have any questions for Mr. de Leon?

MR. SINGH: Yes, sir.

HEARING OFFICER CELLI: Please.

You need to speak right into that microphone, please.

CROSS-EXAMINATION

MR. SINGH: There is a particular corrosion that happened over a period of time through a gas pipeline. Can you tell me what the corrosion is?

HEARING OFFICER CELLI: Can you tell him what the corrosion is in the pipeline over a period of time? What is the corrosion?

MR. de LEON: Rate? Corrosion rate? Is that what you're saying?

MR. SINGH: No. First is the corrosion. Yeah, if you can tell me what is the name of the corrosion that happen in a pipeline, what is the terminology we use.

HEARING OFFICER CELLI: I'm sorry, because people were coughing --

MR. de LEON: I can't -- I can't hear at all.

HEARING OFFICER CELLI: Please speak -- shoot right down the barrel of your microphone and ask your question again, please.

MR. SINGH: So what is the name of the corrosion that happened in a gas pipeline?

HEARING OFFICER CELLI: What do you call the

corrosion that is in a gas pipeline? What is the name of the corrosion?

MR. de LEON: What do you call the corrosion? You call it corrosion.

I don't understand the question.

MR. SINGH: Is it a ferrous oxide corrosion or this is something different? Do you call it ferrous oxide corrosion or something different?

MR. de LEON: Well, there's internal corrosion and there's external corrosion.

MR. SINGH: Yes. So what is the name of those internal and external corrosions that happens? There is specific names to that. You're an expert, I believe, in the pipeline or the gas.

HEARING OFFICER CELLI: Are you referring to the chemical process?

MR. SINGH: Yes.

MR. de LEON: It's an electrochemical process. Corrosion is an electrochemical process by which metal leaves the pipe.

Is that what you're saying? Is that what you want?

MR. SINGH: Let me make you -- if it is an iron pipeline, so the corrosion that happened, which is very predominant is ferrous oxide, so I want to see the gas

pipeline, what is the particular corrosion that happen.

MR. de LEON: I'm very sorry. I don't understand what he's asking.

HEARING OFFICER CELLI: He said that on a -- if you had an iron pipeline, the corrosion would be ferrous oxide, which is -- or rust.

MR. de LEON: Right.

HEARING OFFICER CELLI: What do you call the corrosion that occurs on a gas pipeline? The chemical.

MR. de LEON: We call it corrosion. It's an electrochemical process by which ions are leaving the metal and going into the electrolyte, which is the dirt that's around it; and its -- and it's -- it's leaving the pipe, and therefore, it's leaving a spot where it's reduced the wall thickness in that particular spot where the ions left the -- left the steel.

MR. SINGH: Okay. Yeah.

MR. de LEON: You realize that pipes are coated and they would only corrode where there is lack of coating.

MR. SINGH: Right. So now you know that a coupling factor, when you join two pipelines, the coupling factor?

MR. de LEON: The carbon factor?

HEARING OFFICER CELLI: No, the coupling,

coupling factor. Coupling.

MR. de LEON: Coupling factor?

HEARING OFFICER CELLI: That's the question. Do you know the coupling factor when you join a pipeline?

MR. de LEON: You mean when you weld two joints together?

MR. SINGH: Either you weld it or join. Most it come --

MR. de LEON: You weld -- you weld them together.

THE REPORTER: You can't talk at the same time.

HEARING OFFICER CELLI: One person talks at a time.

So, Mr. de Leon, do you understand his question with regard to the coupling factor of two pipelines?

MR. de LEON: I don't quite understand the question.

HEARING OFFICER CELLI: Can you ask it a different way, Mr. Singh?

MR. SINGH: I'm trying to.

When there are two types, when you connect those two together, there's a coupling factor.

MR. de LEON: I'm not familiar with a coupling factor.

MR. SINGH: Not a problem because I'm going through the corrosion process, so that leads to when you

join two pipelines, the corrosion grows more faster than the regular pipeline because the corrosion happens at the coupling because the diffusion of the gas, it transmits from one to another.

So anyway, you're an expert; I'm asking these questions.

So now considering how old are the pipeline of PG&E which are not -- which are running to Mariposa power plant? How old are those pipelines?

HEARING OFFICER CELLI: Do you know how old the pipelines are that will be used to -- that will go to the project, how old PG&E's pipelines are that will be sending gas to the Mariposa project?

MR. de LEON: Are you asking the age of the line to where the -- where the eight-inch line is going to couple into?

MR. SINGH: Right.

HEARING OFFICER CELLI: Yes.

MR. de LEON: From the information that I've read, it was -- it was -- it was constructed in 1972.

MR. SINGH: Okay. And what is the lifetime as per the PG&E record on that particular pipeline? What is the lifetime of that pipeline?

MR. de LEON: Is the question what is the lifetime of that pipeline?

MR. SINGH: Yeah, what is the life of that pipeline which was put in 1972?

MR. de LEON: Pipeline companies continue to operate pipelines as long as they're in good condition. And there are pipelines in the ground that are a hundred years old.

MR. SINGH: My question is that PG&E always has a record of all these pipelines that are running that what pipeline is subject to repair and maintenance and what subject it need to be replaced at some particular time. Do you have the maintenance record, have you reviewed the maintenance record of PG&E pipelines that is 02 that goes to the Mariposa plant?

HEARING OFFICER CELLI: Have you reviewed the maintenance record of the pipelines that will go to the Mariposa project?

MR. de LEON: I have not reviewed the maintenance records of Line 2, no, sir.

MR. SINGH: So according to you -- we are sitting in 2010. Do you know what material was used in 1972 to build those pipeline and what material we use in today's lifetime, those pipelines material?

HEARING OFFICER CELLI: Let's ask it one at a time.

Do you know what the materials were that were

used to make pipeline 02?

MR. de LEON: Yes. As I understand the Line 2 has X60 or 60,000 -- 60,000 psi yield strength steel, and that is still in use today. You can use 70,000 psi steel. I don't think there -- you can go up to a little higher, but mostly they're using today what was used in 1972, either 60,000 or 70,000 yield strength material. There's some of the newer pipelines are using 80,000. But there's still pipelines using 60,000 psi steel.

MR. SINGH: Okay. So is the statement correct and my understanding is correct over a period of 32, there is no evolution happened in the material of the pipeline?

HEARING OFFICER CELLI: The question was is there any corrosion in the --

MR. SINGH: No. Evolution in --

HEARING OFFICER CELLI: Oh, the development of the material used.

MR. SINGH: The development of the material.

HEARING OFFICER CELLI: Okay. So the question is has there been an evolution of the development of the materials used to make pipelines since 1972.

MR. de LEON: Yes, there has, yes, there has. There's the ductility of materials has improved. They've got much closer control of a lot of the -- the mills have a lot better control of their steel today than they did in

1972.

MR. SINGH: Okay. So is there implement to improve or reduce the corrosion over time, or it is the material strength of the leakage or the blast that happens? So in what way the improvement has happened in the pipelines, or in the pipe material?

HEARING OFFICER CELLI: What improvements have taken place in the time since 1972 in the material used for pipelines? What are the improvements?

MR. de LEON: In all materials?

HEARING OFFICER CELLI: In the steel --

MR. de LEON: There's been lots of improvements in all materials.

MR. SINGH: Gas pipeline. Only in gas pipeline.

MR. de LEON: There have been improvements in almost aspects of pipelines. Since '72, that's been 40 years, there have been improvements in the steels, there's been improvements in the coatings, there's been improvements in the control of welding. I can say that there's been a lot.

MR. SINGH: Okay. That's fine.

So my last question is, in your experience, a pipeline which is 32 year old -- sorry, 40 -- 32 years old, so you see that this pipeline is never subject to any risk of gas leakage or any blast that can happen from

transitioning from one city to another city, what is the length of this 02 pipeline that emerge from the source to the destination as of today?

MR. de LEON: You'll have to repeat it again. I'm sorry.

MR. SINGH: So this pipeline that we are talking about, 02, what is the length of this pipeline from source to the destination, that is destination is power plant? Destination is power plant, the source from where it emerged, what is the length of this pipeline?

HEARING OFFICER CELLI: Did you want to know the distance between --

MR. SINGH: Yeah, the distance.

HEARING OFFICER CELLI: -- the Mariposa project point of interconnection and the source --

MR. SINGH: Where the gas flows into the pipeline.

HEARING OFFICER CELLI: Where the source of the gas that goes into Line 002 is, what is the length of the pipeline from the point of interconnection at Mariposa Energy Project to the source of the gas of Line 002?

MR. de LEON: As I understand it, 580 feet. The eight-inch line from Line 2 to the Mariposa generating plant, I understand is 580 feet.

MR. SINGH: Okay. You know the case of

San Bruno. San Bruno a blast happens basically -- is it correct, that San Bruno?

HEARING OFFICER CELLI: Are you aware what happened in San Bruno, Mr. de Leon?

MR. de LEON: I am aware of what happened in San Bruno, yes.

MR. SINGH: How old were those pipelines?

MR. de LEON: As I understand, that pipeline was put in in 1952.

MR. SINGH: Okay. So basically there's a potential threat, or it could be that in another ten year this pipeline could also materialize into the same sort of explosion down the line?

MR. de LEON: No, I don't agree with that.

MR. SINGH: Okay. And what's -- what's your supporting evidence that it will not happen in ten years or may be fifteen years or may be twenty years an explosion like San Bruno?

MR. de LEON: Well, there are significant differences between the San Bruno line and Line 2.

MR. SINGH: Okay.

MR. de LEON: San Bruno was put it in 1952, 20 years before there were federal regulations. The Line 2 was put in after federal regulations were put into effect. The San Bruno line could not be pigged, and Line 2 can be

pigged. It was pigged, in fact, in 2006, just five years ago.

So there are significant -- and the Line 2 has been hydrostatically tested to 1.6 times the maximum allowable operating pressure. I don't think the history of San Bruno, whether it was hydrostatically tested to the same rigid standards as Line 2. I don't know. But we have a significantly different line between -- between San Bruno and this Line 2.

MR. SINGH: Okay. So we are making a hypothesis or assumptions that we'll be better off with this pipeline but there's no study being conducted on 002 line recently.

MR. de LEON: What has not been done recently?

MR. SINGH: The study or analysis of the risk analysis being done on the 002 line recently.

HEARING OFFICER CELLI: Do you know if there's been a risk analysis done on Line 2 recently?

MR. de LEON: I don't know if a risk analysis has been done, but it's been pigged, as I understand, in 2006, and I think before that it was pigged before then. So it's had two recent, what I call recent, piggings where it's verified that the pipeline is in good condition. There's -- there's more rigid federal standards that were issued for gas transmission lines in 2003 where -- exceedingly more stringent standards for gas transmission

lines since that time, and I think -- I think Line 2 is subject to all those more rigid rules.

MR. SINGH: So basically we cannot change the material. The material is all the same from 1972, so what we are doing is that we are basically --

MR. HARRIS: Objection. Is there a question for the witness?

HEARING OFFICER CELLI: Sustained.

MR. SINGH: So the last question I have, what is the pressure that it was carrying in 1972 and this pipeline was built for handling what kind of pressure psi?

HEARING OFFICER CELLI: How much pressure can Line 002 handle? What was it built to withstand, how much pressure?

MR. de LEON: As I understand, the maximum allowable operating pressure for that pipeline is 890 psi.

MR. SINGH: 890 psi. So that was in 1972 was it built?

MR. de LEON: That was the -- that was the -- that was the maximum allowable operating pressure that was verified by the pressure test that was conducted in 1972.

MR. SINGH: Very good. So now what is the pressure it is carrying as of today?

HEARING OFFICER CELLI: What is the current pressure, what is the pressure for Line 2 today?

MR. de LEON: Today it's subject to the same maximum allowable operating pressure that was established in 1972. They cannot operate that pipeline in excess of 890 psig.

MR. SINGH: Do you have that number as of today, what pressure --

HEARING OFFICER CELLI: He just gave you that number.

How many more questions do you have, Mr. Singh?

MR. SINGH: That's it. I'm done.

HEARING OFFICER CELLI: Thank you, sir.

Next we have Sierra Club of California.

MR. CARLTON: I just have a couple of questions to clarify.

CROSS-EXAMINATION

MR. CARLTON: Have you actually looked, physically inspected the pipeline where it's going to connect?

MR. de LEON: Have I physically inspected Line 2?

MR. CARLTON: Yes.

MR. de LEON: No, I have not physically inspected Line 2.

MR. CARLTON: Have you looked at the actual records, PG&E's records for Line 2?

MR. de LEON: No, I have not physically looked at

the records for Line 2.

MR. CARLTON: No more questions.

HEARING OFFICER CELLI: Mr. Simpson, cross of Mr. de Leon?

CROSS-EXAMINATION

MR. SIMPSON: Good afternoon, sir. Thank you for being here.

What year did the federal regulations come out that you mentioned for pipelines? You mentioned that in 1952 there were no regulations.

MR. de LEON: The federal regulations for all gas pipelines were initially issued in 1968, my referencing the industry standard; and in 1970, the formal federal regulations were put into effect in 1970.

MR. SIMPSON: I see. And do you know what year these pipelines were licensed?

MR. de LEON: As I understand, this pipeline was constructed and hydrostatic test was conducted in 1972.

MR. SIMPSON: I understand it was constructed in 1972. Do you know when it was licensed, when it was permitted?

MR. de LEON: Licensed?

MR. SIMPSON: When it was permitted.

HEARING OFFICER CELLI: The question is do you know when the pipelines were licensed or permitted.

Line 2.

MR. HARRIS: Can I ask for clarification on the terminology, "licensed" and "permitted"? I'm not sure what distinction.

MR. SIMPSON: Well --

HEARING OFFICER CELLI: Let me ask you, Mr. Simpson, to break it into -- you might want to ask about the licensing process for the pipeline. Are they subject to licensing, are they subject to a permit?

MR. SIMPSON: So these federal regulations, were they encompassed in some permitting process, or how were they expressed?

MR. de LEON: The federal regulation then, as now, the federal regulations do not require a licensing or a permitting. If you want to build a pipeline next to you, you can start building without telling the federal regulators that you're building a pipeline, as I understand; and that probably California does, reading their California rules, I think they -- but that's -- I shouldn't be saying that because I'm not sure.

MR. SIMPSON: I see. Then how are the federal regulations enforced, if you can build them without inspection? Is that what you're saying?

MR. de LEON: An operator of a pipeline has to submit an annual report.

MR. SIMPSON: Oh, okay.

HEARING OFFICER CELLI: To who? Who does the annual report go to? Do you know who -- who do they have to submit an annual report to?

MR. de LEON: They have to report it -- they have to submit the report to the -- what is the Office of Pipeline Safety, and what's today called the Pipeline and Hazardous Material Safety Administration, and part of the Department of Transportation, they have to submit that every year. And so it's as soon as you have a pipeline constructed, you have to submit an annual report.

MR. SIMPSON: I see. The attorney mentioned that you were the president of National -- I didn't hear the rest of what he said, though. He said that you were --

MR. HARRIS: I'm sorry, I don't think I --

HEARING OFFICER CELLI: Let me ask you this, Mr. Simpson: What -- since we're taking his qualifications on written resume, I don't really want to get into this if we can.

MR. SIMPSON: Sure. I can try and find that.

In your professional opinion, is it appropriate to consider pipeline safety when constructing a facility like this?

MR. de LEON: Repeat that question.

MR. SIMPSON: In your professional opinion, is it

important to consider pipeline safety when constructing a facility of this nature? Is pipeline safety important?

MR. HARRIS: I want a clarification. "Facility of this nature," do you mean constructing a power plant?

MR. SIMPSON: Yes.

MR. de LEON: We're talking about that eight-inch line going from Line 2 to the generating plant? Is that what you're talking about?

MR. SIMPSON: No. I'm asking when somebody wants to build a power plant, is it important that they consider pipeline safety?

MR. de LEON: Yes.

MR. SIMPSON: Thank you.

Has the regulatory structure been sufficient to protect the public?

MR. HARRIS: Objection; argumentative.

HEARING OFFICER CELLI: Sustained.

MR. de LEON: Since the -- since the --

MR. HARRIS: Cesar, you don't have to answer. He sustained the objection.

MR. de LEON: Since -- since --

MR. HARRIS: Put down the microphone, Cesar. Back away from the microphone.

MR. de LEON: Since the rules, federal rules were issued in 1970, or 1968 to 1970, there has been a steady

decline in the fatalities, the injuries, and the failures of pipelines of all kinds of pipelines. And during my 23 years with the Office of Pipeline Safety, we cut in half the failures, the fatalities, and the injuries during my 23 years with that office. And they continue to decline today.

MR. SIMPSON: I'm sure you've done great things, sir. I appreciate your being here.

And I have no more questions.

HEARING OFFICER CELLI: Thank you, Mr. Simpson.

Anything further, Mr. Harris?

MR. HARRIS: I have nothing further.

HEARING OFFICER CELLI: No redirect?

MR. HARRIS: Yeah. Thank you.

HEARING OFFICER CELLI: Do you have a motion with regard to -- oh, I have a question from the commissioner.

Commissioner Douglas.

HEARING OFFICER CELLI: Mr. de Leon.

PRESIDING MEMBER DOUGLAS: Mr. de Leon, a question from here.

Let's see. When a new power plant is interconnected with a gas line, does that power plant affect the pressure in the gas line in any way?

MR. de LEON: The pressure in what line, Line 2?

PRESIDING MEMBER DOUGLAS: For example.

MR. de LEON: Well, it's pulling gas off line too, so it -- right at the -- it does have a small effect right at the juncture.

PRESIDING MEMBER DOUGLAS: So pulling gas off the line has a small effect in which direction? Does it decrease the pressure by pulling gas off the line?

MR. de LEON: Well, it's pulling -- well, it's pulling gas, yes, it will decrease the pressure, the transient pressure in that area.

PRESIDING MEMBER DOUGLAS: And if the power plant is a peaker, a peaking power plant that cycles its use, it ramps up and down, does the cycling of the power plant have the potential to have an impact within the gas line?

MR. de LEON: No, because gas is compressible, so it won't have any negligible -- no effect on the pipe itself because gas is compressible and the cycling of on and off will have a negligible or inconsequential effect.

PRESIDING MEMBER DOUGLAS: Would the effect be equally negligible even in the case of a degraded pipeline, or does that answer assume a good pipeline?

MR. de LEON: Repeat it, please.

PRESIDING MEMBER DOUGLAS: My question is would the effect of cycling, in your opinion, be negligible even if it's a degraded pipeline, or does your answer assume that the pipeline is sound?

MR. de LEON: It will have the same effect in whatever condition the pipe is in.

Did you say "degraded pipeline"?

PRESIDING MEMBER DOUGLAS: I did, yes.

MR. de LEON: It will have -- if it's -- if it's degraded but still is a good -- it has not affected the integrity of the pipe, then it will have the same effect as if it would be a new pipe. In other words, if it were a new pipe, it would have a negligible effect; if it were a degraded pipe, it would have the same negligible effect.

PRESIDING MEMBER DOUGLAS: Okay. And when you say -- when you say as long as the integrity of the pipe is there, you mean there's no, what?

MR. de LEON: As long as the pipe is -- meets the -- meets the standards that the federal government -- federal government requires, and of course California PUC equally uses the same standards, as long as that pipe meets those standards that it has integrity to continue, it can continue to operate. As you saw, they had some corrosion in 1990 or something like that, they verified that the pipeline was in good condition, could continue to operate because they fixed it.

PRESIDING MEMBER DOUGLAS: Right. And I'm asking you a hypothetical question that has nothing to do with Line 2. I'm asking you if there were a pipeline that were

not up to the standards and federal regulations because it's old, for example, is there a concern about cycling, is there any stress that cycling puts on the pipeline?

MR. de LEON: I don't believe the -- I don't believe the cycling would have any effect -- would have any effect. It's a compressible fluid, and it just doesn't have -- it just doesn't have an effect.

PRESIDING MEMBER DOUGLAS: Thank you.

HEARING OFFICER CELLI: Mr. Sarvey, just follow up on that limited area of questioning.

MR. HARRIS: Well, wait, there was no redirect.

HEARING OFFICER CELLI: No, but I'm going to let them cross on just what was raised by Chairman Douglas -- I mean Commissioner Douglas.

MR. HARRIS: All right. Then can I go first? Because I want to clarify. I think I know what the chair woman was getting at.

HEARING OFFICER CELLI: Go ahead.

REDIRECT EXAMINATION

MR. HARRIS: Chairman Douglas was talking about a pipeline being degraded. And you were talking about it continuing to operate. Is that because -- let me back up.

Can you explain the issue of hydrostatic testing and maximum operating pressure on this line?

HEARING OFFICER CELLI: Actually, that goes

beyond the scope of the questioning that we just -- really, that Commissioner Douglas just asked.

MR. HARRIS: Well, with all due respect, I think the issue --

HEARING OFFICER CELLI: Go ahead, Mr. Harris.

PRESIDING MEMBER DOUGLAS: Mr. Harris, my question was what kind of impact does a -- can a power plant have potentially on a gas line. And so that's the scope of the question.

If you'd like to ask a question within that scope, that would be fine. So, you know, does a new power plant interconnected to a line --

MR. HARRIS: I think I'll quit while I'm behind.

PRESIDING MEMBER DOUGLAS: -- affect the pressure of the line, yes or no. Does a power plant through cycling affect the line in any way, yes or no. That's what I was getting at.

HEARING OFFICER CELLI: So no further questions, Mr. Harris, on this?

MR. HARRIS: With that clarification, no. Thank you.

HEARING OFFICER CELLI: Thank you. Just that limitation. So we're limited in scope to that area of inquiry.

Mr. Sarvey, do you have any other further

questions on this?

MR. SARVEY: You're limiting the scope to a damaged pipeline and the affect?

HEARING OFFICER CELLI: The question included a damaged pipeline. But the question, the scope of the question is the impact of a power plant on the pipeline.

MR. SARVEY: No, I have nothing further. Thank you.

HEARING OFFICER CELLI: Mountain House, anything further?

MR. LAMB: I'm looking for clarification to a question that was asked down here that dovetails with the commissioner's question, which is basically, the question was asked should -- should the safety of the pipeline be considered. And he said yes. But my concern's not with the eight-inch line, it's with the 02 pipeline. So should the safety -- that's my question. Is the safety -- should the safety of the 02 pipeline be considered when considering putting in a plant of this nature?

HEARING OFFICER CELLI: That was asked and answered. And that was a yes.

MR. LAMB: He just said pipeline, he didn't say -- and I'm trying to differentiate between what's being installed, the eight-inch line for the MEP and the existing larger supply line that's being tapped into. And

I think that distinction's important.

HEARING OFFICER CELLI: Go ahead and ask your question.

MR. LAMB: Okay.

RECROSS-EXAMINATION

MR. LAMB: Mr. de Leon, so earlier the question was asked do you think that considering the safety of the type line is important in considering plants of this nature; but specifically I'm concerned with the supply pipe, the larger pipe that's being tapped into.

Do you believe there should be a safety assessment or the safety of that line should be considered when considering these projects? Not just the safety of the line you're installing, but what you're tapping into, should that be a consideration for considering these sort of power plants?

MR. HARRIS: Can you --

HEARING OFFICER CELLI: Do you understand the question?

MR. HARRIS: -- repeat the question, Hearing Officer?

HEARING OFFICER CELLI: Let me put it another way. The installation of Mariposa Energy Project, when you consider the pipeline and its interconnection to Line 2, do you consider the condition of Line 2 to be

important?

MR. de LEON: Yes, the condition of Line 2 would also be important from the -- I think I tried to answer the question. From the information that I reviewed, Line 2 is in very good condition.

MR. LAMB: Thank you.

HEARING OFFICER CELLI: So thank you, Mr. Lamb.

Rajesh Dighe, did you have a follow-up on the limited question of the interaction between the pipeline and the Mariposa Energy Project?

MR. DIGHE: No more questions.

HEARING OFFICER CELLI: One question? No question. Thank you.

No question from Mr. Wilson?

MR. WILSON: No question.

HEARING OFFICER CELLI: Mr. Singh, any question on this limited question of the interaction between Mariposa Energy Project's interconnection to Line 2 pipeline?

RECROSS-EXAMINATION

MR. SINGH: Just a question on the -- just a last question on the failure rate at the coupling.

Is there any analysis being done or conducted recently?

MR. HARRIS: I'm going to object to that being

beyond the scope of the narrow question presented.

HEARING OFFICER CELLI: I'm sorry, I didn't -- I was distracted. What was the question?

MR. SINGH: Failure rate at the coupling from where the gas will be drawn by the Mariposa plant, what are the failure rates at the connection? Has those analysis been done.

HEARING OFFICER CELLI: Okay. Mr. de Leon, the question is what is the failure rate where power plants -- at the point of interconnection between the gas pipeline and the power plant pipeline?

MR. de LEON: From my 23 years with the Office of Pipeline Safety, I have -- I have never -- that issue has never come up, that there is a problem with a connection -- what we call an industry tap, which is what you have here, you're tapping into a main line going to a particular -- a particular customer. I have never heard of that being a problem. And there's never been -- it's never been raised. I don't know of any failure that's ever occurred there.

MR. SINGH: You know this -- this will lead to many other questions, like what is the fan rate on this pipeline 002. So I think like I will let it go. You know, they should consider fan rate. Fan rates are basically how many taps on a single pipeline that are

being permitted at what particular distance. And if the pipeline keep on going old and old, the fan rate keep on reducing --

MR. HARRIS: Can I object? This is not even being --

MR. SINGH: Thank you very much.

HEARING OFFICER CELLI: Okay. The question's withdrawn, so there's no pending objection.

I did have a question, Mr. de Leon, before we go to Sierra Club, because earlier you had said that it is important to consider the pipeline when you're creating a power plant, the pipeline to when considering the Mariposa Energy Project. What we want to know is why is it important if cycling has no effect on the pipeline?

MR. de LEON: Why is it important --

HEARING OFFICER CELLI: To consider the pipeline if the cycling from the power plant has no effect on the pipeline?

MR. de LEON: Well, it's important because it has to meet the regulations.

HEARING OFFICER CELLI: Okay.

MR. de LEON: It has to meet the regulation. So you must -- you must construct it, design it, operating it in accordance with the regulations. But cycling has never been an issue. I should add that cycling has been an

issue in liquid pipelines, there have been one or two failures in liquid pipelines; and if you read the Keifner report, it will mention that there's been one or two, I believe.

HEARING OFFICER CELLI: Thank you.

Now, is this -- let me just move back. I was at Sierra Club, I believe with the questions.

MR. CARLTON: No questions.

HEARING OFFICER CELLI: Nothing further from Sierra Club.

Mr. Simpson, on this limited issue of the interconnection between the Mariposa Energy Project and the Line 2, did you have any further questions?

MR. SIMPSON: Yes. Not exactly the question she asked, but yes.

RECROSS-EXAMINATION

MR. SIMPSON: Excuse my ignorance. Does -- these pipes corrode; I'm guessing part of the corrosion is either from the natural gas or the moisture in the gas. Does the volume of the material going through the pipe have an effect on the corrosion rate?

MR. de LEON: You're talking about internal corrosion?

MR. SIMPSON: Yes.

MR. de LEON: Does the volume have any effect on

the corrosion?

MR. SIMPSON: Yes.

HEARING OFFICER CELLI: And while he's thinking of his answer, I just want to say that since --

MR. de LEON: I think -- I think it has more to do with the amount of moisture that's in the gas more than the amount of gas that's going through. I -- I -- I am not sure, but I believe it's just the amount of moisture rather than the throughput, the volume throughput.

MR. SIMPSON: So would more gas have more moisture?

MR. HARRIS: I'm going to object now because we're way --

HEARING OFFICER CELLI: Objection's sustained.

MR. HARRIS: -- way past --

MR. SIMPSON: This is exactly the question she asked.

HEARING OFFICER CELLI: It really isn't.

MR. SIMPSON: She asked what would the impact be on the pipeline from this facility. This facility's going to bring more gas through the pipe. And does that more gas through the pipe have an effect.

HEARING OFFICER CELLI: That's not the question that was asked. The question was about cycling and the effect on power plants. It's got nothing to do with

throughput.

MR. SIMPSON: That's not the question she opened up to you to ask.

HEARING OFFICER CELLI: Well, so what is your question, Mr. Simpson. Let's see if I can bottom line it.

MR. SIMPSON: My question was just does more gas equal more moisture in the pipe.

MR. HARRIS: Again, this is beyond the scope.

HEARING OFFICER CELLI: I'll just allow this one question.

And this is your last question, Mr. Simpson --

MR. SIMPSON: Sure.

HEARING OFFICER CELLI: So, Mr. de Leon, can you answer the question whether more gas equates to more moisture in a pipeline?

MR. de LEON: Yes. If there were the same amount of moisture and there's more gas, there would be more moisture.

MR. SIMPSON: Thank you, sir.

HEARING OFFICER CELLI: Nothing further?

Anything further from Mr. Harris?

MR. HARRIS: I'm not sure; more gas than what? But, no, nothing further.

HEARING OFFICER CELLI: Okay. Than does the applicant have any exhibits at this time to move into the

evidence?

MR. HARRIS: Yes. We would move all of Exhibit 68, the rebuttal testimony on aviation and hazardous materials.

HEARING OFFICER CELLI: I'm sorry, I can't -- I'm having a hard time hearing you. The echo. Can you say that again?

MR. HARRIS: Exhibit 68, six, eight.

HEARING OFFICER CELLI: Only?

MR. HARRIS: Correct, yes.

HEARING OFFICER CELLI: Any objection to the receipt of Exhibit 68 from staff?

MS. WILLIS: None.

HEARING OFFICER CELLI: Mr. Sarvey, any objection?

MR. SARVEY: No objection.

HEARING OFFICER CELLI: Mountain House?

MR. GROOVER: None.

HEARING OFFICER CELLI: Mr. Dighe?

Mr. Singh has no objection.

Sierra Club?

Mr. Simpson, do you have any objection?

MR. SIMPSON: I don't, but it looks like the applicant has something else.

HEARING OFFICER CELLI: Mr. Harris, is there some

issue?

MR. HARRIS: Well, we have some other hazardous materials exhibits. Did you want to receive those at this time?

HEARING OFFICER CELLI: What I would -- I think we better. Because essentially this is your only hazardous materials witness; isn't that correct?

MR. WHEATLAND: That's correct. I think the others are -- they're uncontroverted; so I should move the other hazardous material exhibits then at this time.

HEARING OFFICER CELLI: Well, let me say this, Mr. Wheatland, since we've already -- for instance, I have my list that 1 is already in and all of those, we don't need to -- they're in in their entirety, so I don't need to have you re-move 1 back into evidence.

MR. WHEATLAND: Okay.

HEARING OFFICER CELLI: So I'm just interested in the new -- the evidence that has not been moved into evidence that you want to move in at this time having to do with hazardous materials.

MR. WHEATLAND: All of the exhibits have -- have been received then.

HEARING OFFICER CELLI: Including now 68.

MR. WHEATLAND: Yes. And 68 is received, and all of our -- have been received.

HEARING OFFICER CELLI: So the record should reflect that 68 is received.

(Whereupon, Applicant's Exhibit 68 was received into evidence.)

HEARING OFFICER CELLI: And we're going to go off the record for one moment.

(Discussion off the record.)

MR. de LEON: Am I dismissed?

HEARING OFFICER CELLI: Yes. Thank you, Mr. de Leon, for coming.

So for the record, that is the applicant's case in chief with regard to hazardous materials, vis-a-vis pipeline. And on the 7th of March when we reconvene, we will hopefully get to the rest of the hazardous materials; but where we will be at is at staff's case, and then we will start taking the evidence in the order that we've been taking it up until now, which is the order in which the intervenors petitioned to intervene.

I do want to say another thing, folks. Hearing Room B is substantially smaller than these facilities. I don't know how we're going to fit all of you together in one table in the room that we're going to be in. So I'm going to ask the parties to work together to stipulate whatever you can, to get -- you know, if there is evidence that you're willing to accept on its -- as written

testimony. Let's -- I ask that you please do what you can to facilitate the efficient completion of these hearings.

I want to thank you. So far you've done a great job, and I appreciate your handling of Mr. de Leon.

With that, we're going to go off the record for one moment.

(Discussion off the record.)

HEARING OFFICER CELLI: We're on the record.

So we're discussing the schedule. It's a quarter to 5:00. We had scheduled public comment for 5:00. We see that there are a few people here who wanted to address the Committee. We're informed there are people on the phone. We have no idea whether those people are members of the public who wish to comment or just members associated with the parties.

We're discussing whether we can go forward. There's a motion by applicant to take testimony on applicant's witnesses. So you know what I think we'll do; let's do that right now, we've got 15 minutes to go.

MR. WHEATLAND: All right. We'll put our socio panel on.

HEARING OFFICER CELLI: Socio for the applicant, come on up.

MR. SINGH: Mr. Celli?

HEARING OFFICER CELLI: So are you -- are

applicant's witnesses coming forward?

MR. WHEATLAND: Yes, they are. They're in the back room, they'll be here in one minute.

HEARING OFFICER CELLI: Mr. Lamb, you had a question?

MR. LAMB: I just wanted to -- just wanted to let you know that it's not likely that we're going to have the same sort of public showing that we had last time. Actually, it's very --

HEARING OFFICER CELLI: I'm seeing lots of public coming in now.

MR. LAMB: I suspect that it won't be nearly as heavy.

HEARING OFFICER CELLI: Thank you.

Obviously what we're trying to do here is preserve the testimony of these witnesses so that we can get them on their way.

Any chance that the parties might want to -- be willing to stipulate to the written testimony and rebuttal as we did last night with -- what did we do that on anyways? Was that -- air quality I guess it was? Last night?

Mr. Sarvey, any chance you'd be willing to accept testimony?

MR. SARVEY: No, I have questions.

HEARING OFFICER CELLI: Okay.

MR. SINGH: Mr. Celli, can I request for ten minutes' break?

HEARING OFFICER CELLI: You know, I can't do a ten-minute break, because in ten minutes I've got public comment I'm taking. So we're going to start these witnesses --

MR. SINGH: I have to go to the restroom.

HEARING OFFICER CELLI: Go ahead. Better hurry. Mr. Singh, go ahead. Hurry up. Go, go, go.

While we're waiting for people --

MR. WHEATLAND: Can I ask, though? Did any parties indicate wanting to cross the applicant on socioeconomics?

HEARING OFFICER CELLI: Let's see what I've got.

MR. WHEATLAND: I don't see any record of that.

HEARING OFFICER CELLI: Yes. Robert Sarvey, Rajesh Dighe, Jass Singh, and Rob Simpson seek to cross-examine. Also, so applicant, staff, and Rajesh Dighe -- well, really Jass Singh and Rajesh Dighe indicated that Robert Sarvey would be their witness for socioeconomics.

Is that still the case, Mr. Sarvey?

MR. SARVEY: No. I'm actually my own witness. I haven't agreed to be sponsored by anybody else.

HEARING OFFICER CELLI: Okay.

MR. WHEATLAND: All right. Well, the witnesses are available. May they be sworn in, please.

HEARING OFFICER CELLI: Let's swear in the witnesses.

(Witnesses sworn.)

THE REPORTER: Okay. Take your hand down, be seated. Please state your names for the record.

DR. YUSUF: My name is Dr. Fatuma Yusuf.

MR. WHEATLAND: Spell it, please.

DR. YUSUF: F-, as in Frank, -a-t-u-m-a, last name Y-u-s-, as in Sam, -u-f, as in Frank.

DR. PRIESTLY: And I am Dr. Thomas Priestly. That's T-h-o-m-a-s, P-r-i-e-s-t-l-y.

MR. WHEATLAND: The witnesses' testimony has been previously submitted and served on all the parties, their statement of qualifications is set forth in their testimony. And the witnesses are available for cross-examination.

HEARING OFFICER CELLI: Thank you.

Staff?

MS. WILLIS: No cross, thank you.

HEARING OFFICER CELLI: Mr. Sarvey?

CROSS-EXAMINATION

MR. SARVEY: Mr. Priestly, in your expert

opinion, are housing prices affected by the buyer's expectation of the quality of the community?

DR. PRIESTLY: As you know, housing prices are a function of a very, very broad range of variables. And perceptions of the community would be one piece of -- again, of a very, very broad set of variables affecting that decision, or affecting that -- housing cost.

MR. SARVEY: Is there any scientific or any kind of research done on how much the buyer's opinion of the community is, or is that just depends, or how does that work?

DR. PRIESTLY: Yeah. You know, I might say that I am very familiar with the literature on property value effects of various kinds of facilities, particularly electric facilities.

I might just mention right here that for the last 30 years I've been focusing on environmental issues associated with electric facilities, and during part of this experience has been doing research on evaluating the property value effects of various kinds of projects. And, oh, very early on I did a big review of all the property value impact literature related to transmission lines. And in my role as an expert witness I've had the opportunity to keep up with this literature, do periodic reviews of it; and so I'm quite familiar with the

literature, the methods that are used, the kinds of data that it attempts to, you know, to tease out and put its finger on.

And, you know, I have to say that I'm kind of thinking in my head now of the various studies that I am familiar with, and I can't think of one that actually has pinned down this variable that you're talking about, which is -- kind of a global perceived perception of the quality of the community.

MR. WHEATLAND: Thank you, Dr. Priestly.

I just want to say to our panel that you were outside the room, but our time is very short today. So I think that the intervenors are going to try to ask short, concise questions, and I hope our panel can answer concisely too, please.

MR. SINGH: I object. You know, this is a main issue for Mountain House.

HEARING OFFICER CELLI: Yes.

MR. SINGH: And we don't want to rush through it.

HEARING OFFICER CELLI: What is your objection?

MR. SINGH: We have to take our time to, you know, like ask; we don't want to rush through this.

HEARING OFFICER CELLI: So what is your objection?

MR. SINGH: We should be given appropriate time.

We should not consize (sic) our questions and all that. We should, you know, like ask the questions --

HEARING OFFICER CELLI: We're going to give you as much time as we can.

MR. SINGH: Thank you very much. Thanks.

HEARING OFFICER CELLI: Which isn't much.

Mr. Sarvey.

MR. SARVEY: As part of your analysis for the MEP here, have you interviewed the residents of Mountain House?

DR. PRIESTLY: I have not.

MR. SARVEY: Have you heard any of the public comment that we heard over the last several meetings, most significantly last night?

DR. PRIESTLY: I heard some of the public comment, but I have to say that some of it was very difficult to follow because of the sound system in this room.

And I might mention right here, not to make too big a deal of it, but my hearing is subnormal; so if I'm asking you to repeat the question, I'm not being a troublemaker, it's just that I really want to make sure that I completely understand.

MR. SARVEY: I have the same problem. I understand.

Do you live anywhere near a power plant?

MR. WHEATLAND: Objection; relevance.

HEARING OFFICER CELLI: What's the relevance?

MR. SARVEY: The relevance is he's opining on people's reaction and housing prices and such to a power plant in the neighborhood; and I think it's a legitimate question on whether it affects his perception on whether he would buy or house or does he live near a power plant.

HEARING OFFICER CELLI: Overruled. I'll allow it.

Just go ahead and answer the question. Just go ahead and answer the question, please. Do you live near a power plant, yes or no?

DR. PRIESTLY: No, I do not.

HEARING OFFICER CELLI: Thank you.

Next question.

MR. SARVEY: Would you consider moving into a home that was within two miles of a power plant?

DR. PRIESTLY: Yes, yes, absolutely.

MR. SARVEY: Okay. Mr. Priestly, you mentioned on page 3 of your technical analysis that the Davis analysis does not appear to have taken any measures to account for the context of power plants included in its sample, and in particular, did not make any effort to identify other facilities that may have been developed in

the vicinity of the power plants during the 1993 to 2000 period.

Does your technical analysis include consideration of the East Altamont Energy Center in conjunction with the Mariposa project and how that might effect residents' property values?

DR. PRIESTLY: What you see here is primarily an evaluation of the Davis paper in which I point out its methodological flaws and the reasons why it is not applicable to the situation here in Mountain House. So for this particular evaluation, the whole question of the East Altamont and so on, really wasn't part of -- wasn't one of the considerations.

MR. SARVEY: So you didn't consider a cumulative effect from two power plants within close proximity to a neighborhood; is that -- that's correct, what you're saying; is that right, your analysis?

DR. PRIESTLY: Yeah. This -- and again, if you read this analysis, you'll see that it is a critique -- primarily a critique of the Davis paper.

MR. SARVEY: Okay. I don't know if we're going to get into this issue with staff or with the applicant, but has the applicant seen Mr. Singh's census makeup in his testimony?

HEARING OFFICER CELLI: Do we have an exhibit

number that you're referring to?

MR. SARVEY: Exhibit 803. Mr. Singh's census track data.

HEARING OFFICER CELLI: I didn't hear what exhibit number, I'm sorry.

MR. SARVEY: Exhibit 803. Mr. Singh's census track data.

HEARING OFFICER CELLI: You know, folks, I'm just going to interrupt your question. Would you put a mark next to your question there, Mr. Sarvey, because it is now time to take public comment. And I'm -- I want to represent to everybody that the Committee has been duly aware all along of Mr. Singh and Mr. Dighe's and other people from Mountain House's concern with regard to socioeconomics; we knew that this was a big issue, we knew this was coming. And in -- it looks like something we're not going to be able to rush through tonight, much as, you know, I would like to get as much done as I can with the evidentiary time that we have, but this is just an impossible task.

We have to take public comment now. We're going to continue this evidentiary hearing to the 7th, which has already been noticed, you've all received the notice. You know that at 10:00 on the 7th we will be meeting in Hearing Room B at the California Energy Commission. And

we're going to resume the cross-examination of these witnesses then starting with Mr. Sarvey at that time. And that's the best we can do.

Mr. Wheatland, you have a question?

MR. WHEATLAND: Will we be able to go on the evening of the 7th if necessary?

HEARING OFFICER CELLI: Yes, I believe we can. We have the room the whole day.

MR. WHEATLAND: I just want all the parties to be on notice --

HEARING OFFICER CELLI: Yeah, be on notice that we're going as late as we need to.

So Sierra Club, we go late. The record is held by my boss Paul Kramer. He went till 4:30 in the morning once; I've only gone to 11:30 myself, and I have no interest in going that late, but we need to quicken our pace.

MR. CARLTON: That's fair as long as you tell us in advance.

HEARING OFFICER CELLI: Okay. So I'm just telling you now that that's the likelihood that day.

So with that, Mr. Simpson has a question.

Yes, sir.

MR. SIMPSON: Shall I consider this a response to my motion to change the venue? I had made a motion to

keep the hearing local.

HEARING OFFICER CELLI: Yes. That motion was considered but was denied because the venue was already noticed at the time that we received the motion. Your motion came in after we had already said, look, we're going to have it at BBID, we're going to have the next one at the California Energy Commission.

Now, what we are going to do, and here's the good news, folks, this WebEx problem that we've been having and the sound and everything, we do not have that problem at the Energy Commission, that's our home turf; and people can call in and actually have high fidelity, good quality sound, can be heard, and it really does work at the Energy Commission. So we'll save a lot of people a lot of driving by having the WebEx functioning very well on the 7th. So that's the plan.

Now, if we have to go further, in other words, if there's the need for one more day, let's say, I'm happy to entertain your ideas of possible places to have it.

MR. SARVEY: Thank you.

HEARING OFFICER CELLI: So with that, ladies and gentlemen, I want to thank, first of all, everybody. I want to thank Kelley Geyer. She's not here right now, but she's the woman who's been running around handling our WebEx problems, these microphones. She's the person who's

gotten this room together for us. She's the person who got all that food for us.

And, Kelley, if you can hear us, I just want to say thank you to Kelley for making it happen and all of the people at the Byron Bethany Irrigation District; thank you for letting us come and hang out in your place.

I want to thank all the intervenors for doing a spectacular job of doing your cross-examinations. I think you're all doing a fabulous job of representing your constituencies.

I'm going to release these witnesses and order you back on the 7th at the California Energy Commission, and you can get the information from Mr. Wheatland on that.

I want to thank staff and applicant and your people, and we will see you on the 7th.

Now we are into the public comment section of these proceedings. We have the mic, which is on the podium, but I can't see it. Is that mic still there?

Oh, good. Thanks.

So is Susan Sarvey here?

MR. SINGH: Mr. Celli, can I make a request?

HEARING OFFICER CELLI: Go ahead, Mr. Singh, but speak really loudly.

MR. SINGH: Sure. As in the beginning of the

evidentiary hearing, I requested for the translator, English not being my first language. So do you think you will provide me on March 7th?

HEARING OFFICER CELLI: I'm sorry, I can hardly hear you. You really need to yell into that thing.

MR. SINGH: Okay.

HEARING OFFICER CELLI: A translator? If you can get a translator, bring a translator. You might want to talk to Mr. Miller and have him there with you.

MR. SINGH: Yeah. Okay. But in case if I don't find one, so can I -- by what time should I send a request to you and you guys can arrange for me?

HEARING OFFICER CELLI: We're not going to arrange one. That motion was denied yesterday. So we just aren't going to -- this Energy Commission will not arrange for a translator. We welcome -- you're welcome to have one if you can find one and bring one. But my suggestion, if I may, would be to have your attorney, Mr. Miller, come with you, and that would be the best person to --

MR. SINGH: I'll check with him if he's available on that day and he can help me.

HEARING OFFICER CELLI: If you could work that out, that would be a good person to have.

Thank you very much. Thank you all. And I'm

sorry for the short duration of this, but this is the way it worked out.

Sarah -- I'm sorry, Susan Sarvey, go ahead, please.

MS. SARVEY: Susan Sarvey, S-u-s-a-n S-a-r-v-e-y.

According to your staff report, this project's capital cost is around $245 million. Since this project has a ten-year power purchase agreement with PG&E, the ratepayers will be paying about $24 million a year for a project that the project owner will run about 600 hours a year.

Using the most optimistic scenario, this power will cost $250 a megawatt plus the natural gas cost, which will also be borne by the ratepayers. At the current price of natural gas, that will be about $40 a megawatt. So the best case scenario is the project's output will cost around $290 a megawatt.

The more probable scenario is the project will run less than a hundred hours. We have a 169 megawatt peaker plant near my home called the Tracy Peaker Plant, which, according to your staff, ran an average of 70 hours a year for the last five years. According to the DWR contract, the project developer receives around $175 a kilowatt year as a capacity payment.

The yearly capacity payment alone, not including the start-up and variable overhead payments is approximately 30 million. That would equate to almost $2,500 a megawatt for the year for the last five years of the GWF peaker production. With the reserve margin in PG&E's territories hovering around 35 percent, the ratepayers don't need to pay for another idle peaker plant.

All of the recent CEC demand reports indicate that peak demand is falling, not rising, due to successful energy efficiency measures and the economic downturn.

I would also like to ask staff for two conditions. One, I would like staff to create a plume map of all the existing and licensed plants for the future and submit it to the FAA for comment on the problems associated with flying through or around a plume. Since there are so many in the flight path and for many of the aircraft and airports near them, I think we really need to evaluate this issue. They could then tell us what problems we can expect from the diversion or going through them and what we would need to have ready in order to respond to an incident.

The second condition I'd like to ask for is for staff to notify Judge Wagner, the EPA judge on the water issues for our pumps and pipelines here. He is

considering changing environmental protection laws for our fish because the farmers do not have enough water. I think it's imperative that he be informed that irrigation districts are selling farmers' water to power plants. It's not a question of we don't have enough water; they're selling the water for profit, and then they don't have the water for the farmers, and they're saying we need to change the environmental law because they don't have water when they're making mega bank. And I think that's extremely unfair and that due diligence requires that we let the judge know that this is occurring.

Thank you very much. I hope you can do this for me.

PRESIDING MEMBER DOUGLAS: Thank you very much, Ms. Sarvey.

I'd like now to call up Yauwai Fu.

Are you here?

MR. FU: My name is Yauwai Fu. I'm a resident of Mountain House.

I'd like to say that you would get a larger turnout from Mountain House if this meeting was more publicized. I only heard of this meeting as of this afternoon from a fellow resident; so, you know, I'm here.

Just to let you know, if you take a survey of all the residents in Mountain House, you'll probably get a 99

percent response of no, we're not in favor of this power plant.

Mountain House is a new community with a lot of young families with a lot of young kids. I have three myself, ages ten, six, and eight. And having a power plant next to our home is not a, you know, great health, with extra pollution that you're going to cause, it's not a very good idea to be put -- you know, to be built next to a new community with a lot of young children.

That's my comment. And I hope you guys would consider.

And I hope you guys would be more considerate and actually send out a survey of the surrounding neighborhoods and, you know, see what the people that live here think about, you know, the idea. And hopefully we have a voice in this since it's so close to our community and our homes.

Thank you.

PRESIDING MEMBER DOUGLAS: Thank you. Thank you for being here. And we heard, as you may know, from a number of people from Mountain House last night as well. And we appreciate that. We really appreciate it when the community comes out and lets us know how they feel about the projects.

MR. FU: Thank you. I'm saying that -- I hope

you guys will do a survey or maybe even put on -- you know, like anything else in this country, put on a ballot where the people have a choice and people have a voice. Then you will really know how we think and how we feel about this project.

PRESIDING MEMBER DOUGLAS: Thank you.

Jeremiah Bodnar.

MR. BODNAR: I was actually hoping to be able to hear some of the discussion on socioeconomics because that's my primary concern, as well as the effect that the results from the Davis paper has on how we might be thinking about issues, things like social justice relative to the high minority status of people who are residents of Mountain House, and because we're the largest area that needs to be considered in the broad area relative to the power plant. Really, we're sort of the census group that matters most for that area of impact given the federal guidelines on the issue. So I didn't hear that, but I did at least get a copy of what Tom said last time, which I hadn't been able to see before. So I'd like to address at least two of the issues here, and maybe they can come up again.

Is there going to be time for public comment in the next hearing as well --

PRESIDING MEMBER DOUGLAS: Yes, there will be.

MR. BODNAR: -- on the 7th?

Okay. Great.

So let me address just a couple of the issues here that come up.

One of the things that Mr. Priestly has as a bone of contention with the Davis paper is that there are only a limited number of variables that were accounted for and isolated as possible predictive variables for the effects that he observed, which was the loss of housing values near power plants after new power plants were built.

He mentions a couple things here in the paper: the size of the lot, the age and size of the home, and the number of bedrooms. This seems to me to be definitely a bit of a red herring. I mean, why would we be isolating for -- I mean, given the fact that we have 92 power plants in 92 different communities, the idea that what all these communities might have in common is randomly just the -- the size of the lot seems very difficult for me to take.

I mean, the very easiest way to compare or to control for these random variables is just to increase your sample size, right? As you know, when you start artificially trying to isolate these variables, it also introduces biases that make their way in. So given the large sample size, I mean 92 power plants, I don't think we need to be worrying very much about isolating those

individual factors, unless we have some independent reason to think that there's a co-variation between lot size and the existence of a power plant or age of size and the existence of a power plant. Without that, I don't think we have much reason. That's number two of the three objections that Priestly raised.

Number three, and this has been a big issue, is the radius of impact. And Davis, in order to get the strongest kind of statistical significance for his results, does quite explicitly say, well, for the very strongest reliability, if we limit it to the two-mile radius, we have the best reliability, the strongest results. And then later on in the appendix he goes on and he graphs the actual effect that is observed as you move beyond two miles. And he concludes that at four miles the effect ends. But the significance and the ability to draw that decreases over time. But I mean, what would we expect? Would we expect it to go exactly two miles and terminate, or is there going to be like there generally is in any socioeconomic example that there's a slowly terminating curve?

Mr. Priestly then sort of dismisses the idea that there's any effect, but I don't think that's very -- very reliable.

So that's just from this; and I just got a chance

to see it now. But let's -- assuming this, and definitely think this is the very best evidence we have about the effect that power plants have on local communities, and I think this brings us back to Mountain House and the fact that this power plant is just too close to us. There are places where it could be beyond that four-mile radius and not have the socioeconomic impact.

I also think that this issue of the socioeconomic impact brings up again the issue of the high-minority status. If you start looking at the population of Mountain House, it becomes much more probable and maybe even more probable than not, that Mountain House is more than 50 percent -- and the radius around the power plant is more than 50 percent minorities.

Socioeconomics is a big part of the economic inequality that we're worried about for the general inequalities that occur when we're dealing with people of minority status who have high representation of Mountain House. It's no secret that people with minority status have a high representation in Mountain House because they can't afford, given historical variables, oftentimes with a higher frequency cannot afford to live in Livermore and Pleasanton, and so they come out here to find the American dream, to start a life for themselves.

It's also no secret that power plants and power

companies come here because with people who spend less on our houses, we have less resources, less education, less ability to fight these things, and less support from our representatives, et cetera. So I see a real connection between this issue of social justice and economics, because the strongest variable that's used to oppress people of minority populations is not overt discrimination, that's against the law, but it is the fact that they have less representation; less power means that they can be economically discriminated against and that economic discrimination results in things like the health differentials and the education differentials that we see perpetuating this broader social problem over time.

So thank you.

PRESIDING MEMBER DOUGLAS: Thank you.

HEARING OFFICER CELLI: Thank you, Mr. Bodnar.

Is Irene Sundberg still here? Irene?

Welcome back. We saw you last night. Former Tracy city council member representing herself.

MS. SUNDBERG: That is true. The name is I-r-e-n-e S-u-n-d-b-e-r-g.

Am I okay?

HEARING OFFICER CELLI: Yes, I can hear you fine.

MS. SUNDBERG: Hey, great.

I've got a couple questions, and I have a little

project for the staff to do.

I'd like to know how many power plants are hooked up or are going to be projected to be hooked up to gas line 102. And I would like an answer on that from staff at some point in time.

HEARING OFFICER CELLI: You know something? Let me just say that the Committee -- we're not expert witnesses here, and, you know, we have a -- there's an applicant somewhere in the building, he has -- I see some of their -- they're raising their hands. These are the people who are the proponents of the project, and they have some people with expertise, and I'm sure you can ask them off line for that kind of information.

The other thing is I wanted you to know that we started hazardous materials, which pipeline would be a -- under that topic area today because we had a witness who was here, Mr. de Leon, who could only testify today. So we took his testimony today, but the rest of hazardous materials will be discussed on the record on the 7th.

MS. SUNDBERG: Would you like me to come on the 7th?

HEARING OFFICER CELLI: If you want. But also, I want you to know that the WebEx telephone conferencing --

MS. SUNDBERG: You won't be seeing me WebEx.

HEARING OFFICER CELLI: I'm sorry?

MS. SUNDBERG: You won't be seeing me WebEx, thank you.

HEARING OFFICER CELLI: Okay. I'm just saying since we're having the hearing at the Energy Commission, the WebEx --

MS. SUNDBERG: Uh-huh, I've been there several times.

HEARING OFFICER CELLI: -- the WebEx works very well from there.

MS. SUNDBERG: That's good, because it doesn't work well at my house.

HEARING OFFICER CELLI: Oh, okay. I was just going to say you could listen in and you could hear all of the testimony with regard to the hazardous materials. But anyway, go ahead. Your comment.

MS. SUNDBERG: Thank you for letting me speak.

There happens -- there's been a -- do you know how many incidents have happened in the area from other plants? I know that the glass plant not long ago after Tracy peaker plant opened there was a fire. And we're very, very lucky that at that point in time the peaker plant was not online, because we could have had a major incident that would have been a problem for our whole community and a devastation to the State of California.

Do we know how many people respond to an incident

if there's an incident and who those people are?

HEARING OFFICER CELLI: No.

MS. SUNDBERG: We can just put this on the record --

HEARING OFFICER CELLI: I mean, this is all in the documentation. But essentially we're in the middle of a hearing and we're taking evidence on this, and so the fact is this may be a matter of dispute, and we're going to get different people's figures. And until we've seen the evidence, we have to weigh it and make a determination, we don't know.

MS. SUNDBERG: I understand that. Thank you.

And where are the shut-off valves if there was to be an incident? I think these are all things that we need to consider. And it would be nice to know within a ten-mile radius as to who is connected and what's interconnected to that Line 102 that this project's going to be tapping into.

Thank you.

HEARING OFFICER CELLI: Thank you. And thank you for coming back, Ms. Sundberg.

MS. SUNDBERG: You're welcome.

HEARING OFFICER CELLI: It's nice to see you again.

We also have Anyana Dai. Anyana Dai.

Please come forward and speak directly into the microphone.

MS. DAI: Hello everybody. My English is not very good, so hopefully I can get you to understand.

HEARING OFFICER CELLI: I'm sorry. One moment.

Are you getting this, Mr. Petty?

Okay. He can hear you, but we can't hear you very well, so please speak up.

MS. DAI: Okay. I came from China two years ago, and I'm a new immigrant. So Mountain House is my first home in the United States. I'm very happy to have a new family here, and I quite enjoy the environment here. I have a little sister who is five years younger, and she is in the elementary school in Mountain House.

And as far as I know, there are more than 8,000 people in Mountain House who really love their homes. And I have a lot of friends who like work very far from Mountain House, but they still enjoy living here because of the good environment and the nice people.

And my friends want me to bring a point of view that they think that the environment will be useless after the electronic plan have been like approved, but they want me to show up because they cannot get back so early because they always work very far from here; some from San Francisco, San Mateo, or anywhere else. But many

people don't want this happen because it will influence our environment.

We don't want to smell the air which has like dirt, or our children will suffer from the bad environment. And we concerned about the essential uses on our society, such as more people will come towards through this area, and they may bring some safety issue. And mostly just the environment issue. It's a very nice and peaceful town in Mountain House, so we want to keep it going like this.

Thank you.

HEARING OFFICER CELLI: Thank you very much. I just want to say that the members of the Committee actually drove through a bit of Mountain House today, and it is a lovely community, and it was a beautiful day, it was green, and there was a rainbow, and it was lovely to be there, so I understand what you're saying.

Thank you.

We have Huyanh Dangtran, a resident of Mountain House. Is Huyanh I don't know --

(Discussion beyond microphone range.)

HEARING OFFICER CELLI: Come on over to the microphone. We need you to make it into the record. So go ahead.

MS. DANGTRAN: Yes, hello, my name is Huyanh

Dangtran. I'm a resident of Mountain House. And I'm very concerned about this plant being built so close to where we are living. And I want to echo the concern that this young lady just mentioned, right? And I have small children myself. I wish I could bring them so you could see.

But, you know, this plant, I read in the binder back there about exhaust pipes, so I would assume there will be some smoke, some fumes; and I'm very concerned about what kind of fume, but I think I have a general idea what those fumes would be. They would be, you know, unhealthy. And I don't want that fume to be blown this way. We get, you know, western winds, and, of course, we're the western side of where this plant would be built if it were to be built, and I would be --

HEARING OFFICER CELLI: It would be east of the plant.

MS. DANGTRAN: Yeah, we would be east. And I get this wind coming from -- coming to us, so it's from the west coming to us.

So we're only 2.5 miles away. That's very -- very near. And we don't want to be the receiving brunt of that. I'm not a scientific person, so I don't know what else will be coming our way, but, you know, I can visualize the pollution, and I'm very, very concerned

about. So I hope that you will consider our concern.

And I also want to echo this gentleman here, I don't know where he is, but he's the first man who said that we should have a survey about Mountain House residents. You make this a well-known issue. Because to me, it came in an e-mail, and I get e-mail going to my spam box all the time. I may miss the e-mail. But I -- fortunately, I received the e-mail. And the gentleman who spoke, the first one I think, first or second that spoke from the public there, he did say that he only received the notice that you were having a hearing or heard about this proposed plan -- I forgot what he said, but he only heard about it today and he ran over here to voice his concern and his, you know, his worries about what's happening.

So I would like the opportunity for all the residents in Mountain House to know about what's going on so they can voice, you know, about their opinions. And I hope that you could -- somebody has to let them know. A flier, not an e-mail. Not everybody has an e-mail. And if they did, it go to -- there's a possibility it go to the spam pocket, box.

So thank you for your time. Thank you.

HEARING OFFICER CELLI: Thank you. Thank you for your comments. And I just want to say one thing. We have

a web site, there is a web site, www.energy.ca.gov, g-o-v, slash, siting cases, s-i-t-i-n-g-c-a-s-e-s, slash, Mariposa. And that will take you right to the web site. And you can see everything that's happening that's posted to the web site relative to the Mariposa plant.

And we -- and when you get to the web site, there's a little box on the side of the screen that says do you want to receive e-mail notices. And if you put your e-mail, you'll get everything that goes out. Every notice, that will go out to, you'll be on that list.

MS. DANGTRAN: Okay.

HEARING OFFICER CELLI: So I encourage you all to do that if you're not already.

MS. DANGTRAN: Okay.

HEARING OFFICER CELLI: Thank you.

MS. DANGTRAN: Well, thank you.

HEARING OFFICER CELLI: Now, Vipin Goel.

Vipin Goel. Hello, please come forward.

MR. GOEL: Hi, good afternoon. First of all, I'd like to thank, I guess on behalf of all of us and many of us who are not -- who have not been able to attend this hearing -- you can't hear me?

HEARING OFFICER CELLI: No, you're echoing a bit. Can you speak right in the microphone?

MR. GOEL: Is this better?

HEARING OFFICER CELLI: Much better. Thank you.

MR. GOEL: Thank you.

So I'll start again.

First of all, I wanted to thank on behalf of all the people present here and many who could not be following this forum to voice our opinions. And I don't think I have anything to say which you probably haven't heard multiple times over, but I mean, as one of the resident, I'm very, very concerned. We moved here for us not too long back, relatively, but I know a lot of people here who have been living in Mountain House for several years. We moved even though the commute was huge, we moved because we loved the town. And we thought it would be a nice place for the kids to grow.

It's a fairly young town. If you see, most of the families are fairly young. They have kids who will be living here, who will be exposed to the air. The housing prices have already taken a huge hit for the last few years, and this is not going to help. I mean, it's going to have a double impact, unfortunately. Not only will it prevent people from coming, it will push people out. And it's likely that we'll have to think of packing up and moving.

It's -- it's -- I don't know how to emphasize, I do not know how we can prevent it beyond this, but this is

something that is critical to a lot of us and I hope that will be taken into the consideration.

Thanks.

HEARING OFFICER CELLI: Thank you.

And while I'm think about it, Mr. Dighe, I just remembered that when you come in on the 7th and we're going to be talking about socioeconomics, will you please remember to bring your disk of the exhibit of the video that you -- the newscast?

MR. DIGHE: It's in the disk --

HEARING OFFICER CELLI: You sent them to me, but the ones that I got, they're -- they're jerky, they don't -- it's not a smooth video. And so I was hoping that if you brought one, we will play it at the next -- on the 7th.

MR. DIGHE: Sure. I will get a copy.

HEARING OFFICER CELLI: Thank you.

MR. SINGH: I have the same video which I have sent it to you, probably -- if the computer is slow, then it doesn't play very well.

HEARING OFFICER CELLI: Yeah, I played it on -- I played it on my computer in the office, and it -- it kept sort of stopping and starting, and it didn't come out very well.

MR. SINGH: Not a problem. We'll recheck that.

HEARING OFFICER CELLI: Is Dave Anderson here from the Tracy Airport Association.

Come on down, Mr. Anderson, and speak directly into the microphone if you would, please.

MR. ANDERSON: I'm Dave Anderson, I'm vice president of the Tracy Airport Association, we're a member of the California Pilots Association. And we oppose the development of this project. This project was rejected by the Airport Land Use Commission in San Joaquin County because of its adverse impact on the area and its operating area.

The data presented by the Mariposa project folks is incomplete, inaccurate, and misleading. Their models indicate that the plumes in the area behave like a -- like a Gaussian distribution, and, in fact, they do not because of the temperature. The way the plume is, the cold air outside of the plume concentrates the area, so instead of behaving like a normal Gaussian distribution, it behaves like a laser and it contains the updrafts from that plume, which according to their numbers, were up to 1400 feet per second. That's detrimental to small aircraft, ultralights, gliders that operate in the area.

The power plant is proposed to be located directly in the flight path between the bay area and Byron Airport. It interferes with the instrument flight

approaches into Byron Airport and will adversely affect those.

The reports from the Mariposa project indicate that they're expected to have light to moderate turbulence generated by the power plant. Well, for a 737 that's not a bad deal necessarily, but there's a large number of small aircraft like ours, ultralights, parachutists, gliders, operating in and out of the airport at three different levels, down to 500 feet.

The predominant winds in the area are out of the west. The power plant is planned to be placed on the west side of the approach into Byron Airport's main runway. And the winds will blow the plume directly into the flight path of the aircraft because the plant is located one mile just to the left of the flight path. And it didn't seem like it was that close until you fly into that airport, and you look down as you fly into that airport and that power plant is parked right on the approach to the main runway of the Byron Airport.

The county, the state, and the federal government invested millions and millions of dollars when they built that airport as a reliever airport for the bay area. And this power plant will adversely impact the operation of the airport.

There was similar power plants proposed in

Hayward and Modesto, and both of those power plants were shut down because of their adverse impact on the airport itself.

Thank you.

HEARING OFFICER CELLI: Thank you, sir.

Is Trina Anderson still here?

MS. ANDERSON: I have to bend it down, I'm a little shorter.

All right. I'm Trina Anderson with the Tracy Airport Association. I'm secretary and treasurer there. Also a Cal Pilots Association. I'm here to elaborate more on what David said.

Mostly with the birds that are flying there right now at the Byron Airport, due to the heat plumes just from the blacktop at the airport causes a problem. And then when you add extra heat from those heat plumes, you add more birds; and with more birds, you have more bird strikes. And when you have a bird strike with a smaller aircraft, you have a major problem.

So basically I'm here just to let you know that there is also a bird problem, not just the heat problem or a plumes, there's also birds.

All right. Thanks.

HEARING OFFICER CELLI: Thank you, ma'am.

Is Eve Lou or Eve Lon -- please come forward.

MS. LOW: Hi. My name is Eve Low. I'm here today to represent my family here, the two beautiful girls and my husband is here with me, and also to represent some of our friends who can't come for this meeting tonight.

You know, we move into this beautiful community of Mountain House in year 2003, and we are the first 26 homes that came into this beautiful place. And for the last seven years we can see how the community develop from nothing; even the school, we see that, you know, the school is being built from scratch all the way up to now we have such a beautiful environment here.

And so I'm a stay-home mom, simple woman, but I do have concern. And many of my friends do have the same concern as me too as to what some of our residents here have pointed out is to, you know, the health issues here.

This is a community where we have a lot of young families here, beautiful children and beautiful families; and this is one of the communities that you never really see in the cities of America where when he come out to play in the playground, you see whoever are on the streets; they are neighbors and not someone from other towns that comes in really because we have nothing here. We just only have one beautiful central park. Thank goodness it was here before the market crash.

So, you know, so it's such a beautiful city that

we have concern that if this power plant that comes in, the health issues of the children and the families will be affected.

And on top of that it's not because of the health issues that we're concerned of, the other concern that we have is the property price. The property price has really gone way, way so low, as we all know, and we are all bleeding here. And by bringing these things into this place, we are even more worried about how this community is going to go from already bad situation in terms of prices and to what is going to become. So this is something that we are very concerned about.

And also, to echo the first gentleman who mentioned about giving the residents here a chance to voice opinions by taking a survey, I think that's a brilliant idea because Mountain House is a bedroom community, a lot of people commute, and you have this meeting at this time, a lot of us cannot make it because they are so stuck in the traffic, especially on Friday night. So I think to be fair to, you know, the residents here, do something, give us a chance to take a survey, and at least we know what's going on before things just come into this beautiful community.

And that's all I wanted to say. Thank you.

HEARING OFFICER CELLI: Thank you, ma'am. Thank

you for being here.

Is Vinod Pothuru here? I'm sorry if I'm mispronounced the same. Vinod?

MR. POTHURU: I'm Vinod Pothuru; I live in Mountain House. Thank you for giving me the opportunity to express my opinion.

I oppose this power plant. I have moved here from bay area to have better living, and I see this is very nice place. And this is very green. And if this power plant comes, it's going to pollute all this locality and community, and children will suffer with many health problems.

And already the home values, as you know, they dropped significantly; we are all suffering from that. With this new power plant, we are -- it is going to make worse the situation. And not only that, and many people will leave this place, and it's going to get worse. That's why I request this Committee to consider our opinion; and everybody has the same opinion. Many people would not like to get this power plant over here.

And government is encouraging to go for solar, and in California we have plenty of solar energy as well as in Mountain House abundant wind energy there. We can think of alternative things. This power plant is going to pollute whole area. Please consider our opinion.

Thank you.

HEARING OFFICER CELLI: Thank you. And the Committee will consider and address your opinion in the proposed decision that's coming out.

Is Annie Wang here, Annie Wang?

Is this Annie Wang?

Annie Wang, would you do us a favor, because we can't see you behind that big podium, you want to come up forward and talk into one of these microphones?

MS. WANG: Hi, I'm Annie, and I'm in Questa School. My friends, some of them knows about this; so they're very disappointed because some of them just likes to play outside and don't want to be on house.

Okay. Thank you.

HEARING OFFICER CELLI: Thank you, Ms. Wang. Thank you for being here.

Is Linda Benz here?

MS. BENZ: My name is Linda Benz. I'm a Mountain House resident.

And first, thank you for taking the time to hear the concerns of the many residents of Mountain House.

HEARING OFFICER CELLI: Ms. Benz, could I ask you to pull your mic up a --

MS. BENZ: Little bit more?

HEARING OFFICER CELLI: Yes. That's much better.

MS. BENZ: Okay. We moved, my husband and I moved to Mountain House in the fall of 2007 because we love the area and because we believe in the vision of Mountain House. The community of Mountain House has suffered significantly as so many of us have seen the values of our home erode. The loss of home values has put a significant strain on the people of this community financially as well as the unseen health impact that such stress can have on individuals. Adding to the stress, the possibility of a power plant being built in our backyard. Allowing the construction of a power plant so close to our community will be extremely detrimental to Mountain House's recovery.

I am sure you have each suffered a loss on the value of your own homes, but I ask you to put yourself in our shoes and imagine yourself here in Mountain House and how much your home value has dropped and the prospect of a power plant being built in your backyard further hurting the value of your home. Then think about if you had a son or daughter, niece or nephews or grandchild attending Questa School three miles away and downwind from a power plant. Think about the long-term impact it would have on you and your families financially, mentally, and medically. There has to be an alternative location for this plant.

One final point I would like to make is about personal legacy. Each of us in this room has the opportunity to leave the world in a much better place than it was. I ask that you think about your personal legacy and how you would like to be remembered. Think about the positive impact you can have on the people and children of Mountain House not only now, but for many years to come by not allowing the construction of this plant. What kind of legacy would you like to leave behind?

Please leave a legacy that you can be proud of and do the right thing, and please do not allow the construction of this power plant.

Thank you.

HEARING OFFICER CELLI: Thank you.

Yauwai Fu? Yauwai Fu? Yauwai Fu?

He spoke. Okay.

Frank Lin?

MR. LIN: Hi. Good evening or good afternoon to everybody out there. My name is Frank Lin. I'm here to represent my family and Mountain House here.

We move to Mountain House three and a half years ago -- the proposed Mariposa power plant project. And recently we learn that a power plant fueled by natural gas is going to be a -- build 2.5 miles away. Now that we already suffering high priced gas and utility bill.

People are talking about global warming. Federal and state government are spending money to promote the renewable energy, green energy, and they want everything green. You look back at everybody in Mountain House community gots green on their face first because the power plant burning natural gas is going to build in our backyard 2.5 miles uphill.

We are not against the utility company using new technology to generate electricity. It can be wind turbine, it can be solar power. We've got lots of wind turbine up here. So people got no doubts about -- it's windy here.

I was wondering what would happen once power plant built. Even wind turbine company got lawsuit because wind turbine sometimes -- and this natural gas burning power plant not only generate air polluted emission, but also kill its downhill communities economic-wise or these things. Mountain House is the first town.

I was here yesterday, heard people from neighborhood counties say yes to this proposal. I want to ask a simple question. Were they agree to move the proposed power plant to the other side of Altamont Pass? It will provide more convenient energy source to Lawrence Livermore; lot of benefit. But the answer is a simple no.

My own opinion, personal opinion, somebody got paid to come here to say yes to this proposal. I don't blame them because it's probably their job. I know all of Mountain House resident got no pay to come here to say no. And all of you guys on the stage in the front, I love your job, because you got here you got paid to be here to say either way, yes or no. So please make a right decision for us after this hearing.

Thank you.

HEARING OFFICER CELLI: Thank you. And that's our intention.

Is Satya Sinha -- Satya Sinha?

MR. SINHA: Good evening. And I thank you again for giving me another opportunity. I was here yesterday, but I feel strongly about this issue so I thought I'll come again and --

HEARING OFFICER CELLI: Welcome back.

MR. SINHA: Thank you.

-- and share a few other things with you folks.

HEARING OFFICER CELLI: Please speak directly into the microphone so we can hear you.

MR. SINHA: Not to sound like a broken record, but, you know, others have very eloquently stated their concerns. And suffice to say I share their sentiments, but there is one additional point I would like to make

here, please.

People have moved into Mountain House from east bay or the entire bay area, and one of the things that have attracted them to Mountain House apart from being a new community is the topnotch schools. And you'll be surprised, pleasantly I might add, that Mountain House school, the Lammersfield School District happens to be the pride and joy of San Joaquin County. This was by API scores. This was -- this is the best school district in the entire county. And one of the schools happens to have the best API scores within the community, within the county.

The concern is that if this power plant is installed here, many, many people have expressed the concern that they will have to make this extremely difficult decision of moving out of the community and probably going back to the bay area, east bay, and probably live in a much smaller house, but they will have to take that decision. And then many of them have expressed this opinion extremely strongly. Quite a few families that I know of, along with others that live in Mountain House who have already moved out.

If the plant is built here, I'm afraid that many, many potential buyers who probably are looking at Mountain House because of the good school districts are not going

to move here, many will move out, and this pride and joy of ours, the school district, is probably going to go back to nowhere, nobody will ever hear about it again. I may sound a little dramatic, but this is not within -- this is definitely within the realm of possibilities.

So I request you to, please, consider it very sincerely. And I know you are, and you have my deepest gratitude for that, but, you know, let us enjoy a few small, little things like a school district. It's not small, this is our kid's future.

People have moved here from throughout the country, you know, sacrificing a lot. You know, we could have lived in the bay area in a smaller house, but we chose to live here. School district happened to be one of the biggest attractions. And I would appreciate along with many, many others here if that could be -- could be kept in tact.

And I thank you again.

HEARING OFFICER CELLI: Thank you again. Thanks for coming back. It shows that you're pretty committed.

Is Ram here? Ram?

Thanks for giving me the abbreviated name because I was reading this, and I was going -- I wouldn't even know how to start. Go ahead.

MR. BALASUBRAMANIAN: All right.

HEARING OFFICER CELLI: I need you to speak right into the microphone so we can hear you, please.

MR. BALASUBRAMANIAN: My name is Ram. My wife and I, we moved to Mountain House in the summer of 2008, and we've been there since then. We have a 16-month-old that was born here at Mountain House.

So one of the main reasons we moved to this place from the east bay, we were living in San Ramon earlier, is that we thought this place was pollution free. May not be really free, but less pollution at least. I know we thought it was so far away from any of the freeways, and that was one of the main reasons that we moved.

And the information about this power plant was not available to us at the time we moved. We had no idea absolutely that there was a power plant that was coming in in this area.

So if this power plant does come in, then, you know, I guess -- I guess we'll just have to leave and go elsewhere. I mean, that will be our decision.

It's a great community, absolutely fantastic community, and we really, really want you to people to take a decision against this power plant coming here.

HEARING OFFICER CELLI: Thank you

MR. BALASUBRAMANIAN: Thank you.

HEARING OFFICER CELLI: Jack Li. Is Jack Li

here?

Hi, Jack Li. Speak right into the microphone sir.

MR. LI: I mean, I think this power plant is wrong because my family moved here to like experience fresh air. We used to live in Cupertino. The pollution was really high. And the -- it was really loud every morning. So we moved here; it was more quieter and like pollution free. Because if they build this power plant, we're going to have to like leave this place. And power plant is also -- like it increases our risk of health damage. It completely destroys the environment.

HEARING OFFICER CELLI: Anything further, sir?

MR. LI: No.

HEARING OFFICER CELLI: I want to thank you for coming up and speaking. We really appreciate your comments.

MR. LI: Okay.

HEARING OFFICER CELLI: Thank you.

Hui Chen? Hui Chen? H-u-z? Oh, I'm sorry, it looked like --

MS. CHEN: My name is Hui Chen.

HEARING OFFICER CELLI: Welcome back.

MS. CHEN: Yesterday I forgot you something. Actually, just like my boy said, three and a half years

ago why we move here, because it's a very nice place, especially for family. Fresh air and good school, big park. It's so nice. So why we purchase house here. And if you are going to build a power plant, all this could be destroyed, you know.

I already told my boy, even the youngest one, he's six years old, so I told him if they do the power plant here, we are going to leave the home, we are going to abandon the house. We have to. I don't want them put their health in big risk, because like I ask my boy did research online. All these power plant, all the house, the people live very close to power plant, they are -- they get much more higher chance to get cancer, especially for kids.

So and also, as I think, this is a very perfect place to generate renewable energy. So it's not supposed to build a power plant here.

And also, this is farmland for San Joaquin county. It's a big farmer land. Like we have all kind of agriculture products, like fruits, all kinds of fruits, all kinds of farmer products. So these are all going to be polluted, not only the people. Okay? So we are people here.

Even this is a small community, maybe our voice is small, it's not so loud, but we are people, we're life.

So I hope this community can be keep as nice as it can.

Okay. That's all.

HEARING OFFICER CELLI: Thank you. Thank you for your comments.

Is Nikhil Pothuru here?

If you would please speak directly into the microphone so we can hear you.

MR. POTHURU: Sure. My name is Nikhil Pothuru. I'm a Mountain House resident. I'm going to Questa School, and I'm in seventh grade.

I believe the power plant is bad for our community since kids can get lung disorder; and it will be bad for the health.

When I first moved here three years ago, I was excited to come here. I do not want to see the power plant be built. My friends, my family are fearing the power plant. I do not want this to go any further.

Thank you.

HEARING OFFICER CELLI: Thank you. Thank you for your comments.

Is Bixia Ji here? Bixia Ji?

We had you on the telephone.

MS. JI: So, yeah, I choose to come here in person.

HEARING OFFICER CELLI: Oh, good. Thanks for

being here.

MS. JI: So I guess everyone, lots of people talking about why the plant is not good here for Mountain House. Another point I want to point out is, is that --

HEARING OFFICER CELLI: I need you to speak right into the microphone. Talk right into it.

MS. JI: Okay. Can you hear me now?

So you may not see too many people show up here because of the time; so most of the people work, they have long commute, and they cannot come back to here in time. So that's why you see so little people.

HEARING OFFICER CELLI: We've seen a lot of people from Mountain House, I want you to know; last night and tonight, a lot of people have come. I know there are many more residents than have come, but a lot of people have shown up.

MS. JI: Okay. Good.

Also, the community is not -- not done. We are still growing. When you see the -- all the 12 villages are built, you can see how many people, maybe like 20,000 homes in Mountain House. And I believe most are homeowners. All the residents in Mountain House will not agree with a power plant. So, yeah, we should think for the future.

Thank you.

HEARING OFFICER CELLI: Thank you.

Priya Prasad. Priya Prasad. I'm sorry if I mispronounced your name.

MS. PRASAD: No, that's perfect.

HEARING OFFICER CELLI: Thank you, go ahead. And speak into the mic, if you can put it right up to your mouth, please.

MS. PRASAD: Okay. Is that okay?

HEARING OFFICER CELLI: Bring it right up like this. Yeah, it bends up there.

MS. PRASAD: Hi. My name is Priya, and I'm a Mountain House resident.

We moved here in the summer of 2008 and have been here ever since. And we really love the community. Like my husband said earlier, when we moved here, we had no idea that this power plant was come. I mean, this power plant coming up would definitely have impacted our decision even at that time, and it still does. I mean, if the power plant comes up, we'll have to take a very, very difficult decision and move out of Mountain House how much ever we don't want to because we love the community, it's great for kids.

We have a one-year-old, and you know, he loves it, the parks. When our parents visit us, they love it. And the school district, like some of our friends has

said, is really growing very nicely and very fast. It's one of the best in the San Joaquin County now.

So, you know, all these things are going to be impacted by the power plant. Considering the long-term impacts that the power plant might have, you know, that might lead us to take an important decision, like I said, of moving out.

And I really like the idea that one of our friends have said about the survey, because many of the residents could not make it to this meeting; and we could only make it today, we couldn't make it yesterday and the day before. So I really like the idea of survey. And I'm hoping you consider something along those lines, because I'm sure not a single resident would want to vote for the decision of the power plant.

HEARING OFFICER CELLI: Thank you, ma'am. Thank you for speaking.

Now, if there's anyone else who wants to speak, who's here today, we need you to fill out a blue card like this and give it to Lynn Sadler, who is over here. I have people on the telephone. And we're going to go to the telephone now.

Is Jeff still on the line? Jeff?

Nobody? We have no one on the telephone?

That's right. The two people who were holding on

the line actually came down here to speak. So so much for telephone technology, folks; it's great that you came.

Now, this -- seeing that there's no one further that wants to make -- is there anyone else who wants to make a public comment?

(Comment from beyond microphone range.)

HEARING OFFICER CELLI: You know what, why don't you -- not really, but come on down and make it snappy, okay?

MR. BODNAR: I just was looking at the February 7th date, and I realized that if it's not here, there's a good chance I won't be able to make it. So I just want to say something --

HEARING OFFICER CELLI: Can I speak to that?

You know, people calling in on what we call the WebEx -- that's what this thing is on the computer. You have a computer?

MR. BODNAR: Yes.

HEARING OFFICER CELLI: Okay. How WebEx works is this, you type in on your computer, you go through the directions, and they're part of the notice. WebEx calls you. It makes a phone call to the phone that you want to listen in on, or you can listen through VoIP on your computer; but if you want to participate and talk, you have them call your phone. And then you can listen to the

whole thing in our home, put it on your speaker phone. You can be doing other things and listening at the same time. We do this as a convenience for the public because we want the public's participation.

And we are having our next hearing at the Energy Commission in Sacramento, which is quite a drive for everyone. And we're doing this as a convenience because we want people to call in and listen. And so I really invite everybody to please take advantage of this. It's a great thing, it's -- you know, we live in the modern age, and let's take advantage of it.

So go ahead. I'm sorry.

MR. BODNAR: Promise I won't use more than 30 seconds.

I just want to say one last thing that I had hoped to say last time and forgot, which is with the criticisms that have been made of the Davis report, we can all remember back to when the studies on things like tobacco causing cancer occurred, and we could always find an expert to say, well, no, these studies aren't good enough.

But the thing I want to make sure is central in our minds is the decision we have to make is given the evidence before us, it's not can we conclude with 100 percent certainty that these economic impacts are

imminent, but it's what -- given the evidence available, what's the best conclusion we can make. There will always be reasons for doubt, but given the evidence available, what's the best conclusion we can make.

And should we be conservative in favor of the people who might be impacted adversely or should we be conservative in favor of just sort of not doing anything so that criticism isn't brought to you? Because it seems like when you have to make a tough decision and evidence is limited, the easiest thing to do is nothing; but oftentimes the best thing to do is to say, given the evidence available, knowing that it's incomplete and imperfect, what's the best, most probable and most ethical choice we can make.

So that's all. Thank you.

HEARING OFFICER CELLI: Thank you, Mr. -- Jeremiah.

Raj Arokiaraj? Raj Arokiaraj?

MR. AROKIARAJ: That's perfect.

HEARING OFFICER CELLI: I'm sorry if I mispronounced.

Go ahead, sir.

MR. AROKIARAJ: I'm a Mountain House resident, and I live here for the past three years, but I was staying in Mountain House in 2005 at one of our friend's

place, and looking at the place, we just fell in love with the place, then we decided to move here. We had to sacrifice a couple things like our commute and other things, but still we loved the place and we moved here.

And things are not going very well for Mountain House, you know, like the economy crisis, and other things. And we were expecting the high school, because my son will be going to high school in a couple of years, but all the things we said, forget it, we'll still live here; it's a beautiful place, it's worth living here even if you don't get those things.

But the last straw on the camel's back is this power plant. And if that comes, we would surely move out; but that's not good for this beautiful place.

So that's it. Thank you.

HEARING OFFICER CELLI: Thank you. And thank you for your comments.

Ladies and gentlemen, I have no more cards. So --

Oh, I have a caller named -- are they muted?

Hello, please speak really loudly because we can barely hear you.

MS. OWENS: Hello?

HEARING OFFICER CELLI: Hello.

MS. OWENS: Okay. I didn't know if I --

HEARING OFFICER CELLI: What is your name? Could you spell your name, please.

MS. OWENS: I-r-e-n-e, Owens, O-w-e-n-s.

HEARING OFFICER CELLI: Thank you, go ahead.

MS. OWEN: (Inaudible.)

HEARING OFFICER CELLI: Anything further?

MS. OWEN: Thank you very much.

HEARING OFFICER CELLI: Thank you. Thank you for your prayers.

With that, I believe we've taken all the public comment. And I want to thank you all for coming down. And I'm going to hand the evidentiary hearing back to Commissioner Karen Douglas.

PRESIDING MEMBER DOUGLAS: I'd like to say that I really appreciate everybody being here in person and on the phone. I know how valuable your time is to you. This is family time, you have long commutes, you work hard, and it's very hard to take time out of your lives to come to a public workshop or hearing in the evening.

We'll take that comment in a moment.

I also am well aware, as many of you has said, that there are probably a good deal more people who might have been here if it were easier for them. So that comment was very much heard.

We've got one more person who filled out a card,

so I will stop, and I will ask Renu to please come forward.

MS. SINGH: Hello, everyone, my name is Renu Singh. I am a resident of Mountain House since 2004.

I'm here today to strongly oppose the power plant. And I -- I know a lot of people in Mountain House who have the same opinion. And I would do my best, I mean try for the power plant not to be here.

Thank you.

PRESIDING MEMBER DOUGLAS: Thank you.

And is there anybody else who hadn't filled out a card but seeing the hearing about to close would like to speak? Is there anybody else who would like to speak?

All right. As I said, we have heard you, you've spoken with a very unified voice. We will consider your comments, we will respond to what you have said as we -- when we write our decision.

I'd like to thank you again for being here. Invite you all to call in, use WebEx if you'd like to speak again at the hearing on the 7th, if you'd like to listen to the socioeconomic in particular testimony.

We'll put out a schedule. The socioeconomics is what we would start with. So for those of you who particularly want to hear the socioeconomic testimony, that will be 10:00 a.m. on the 7th.

Thank you for being here. Hearing for today is -- hearing is continued until the 7th. So thank you.

(Thereupon the California Energy Commission, Mariposa Energy Project Evidentiary Hearing adjourned at 6:09 p.m.)

CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Evidentiary Hearing; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing, nor in any way interested in outcome of said conference.

IN WITNESS WHEREOF, I have hereunto set my hand this 2nd day of March 2011.

_____
PETER PETTY