EVIDENTIARY HEARING

BEFORE THE

CALIFORNIA ENERGY RESOURCES CONSERVATION

AND DEVELOPMENT COMMISSION

In the Matter of:	)	
	)	
Modification of the Application	)	Docket No.
for Certification for the	)	01-AFC-7C
Russell City Energy Center	)	
_____	)	

CONFERENCE ROOM 2A

HAYWARD CITY HALL

777 B STREET

HAYWARD, CALIFORNIA 94541

THURSDAY, JULY 19, 2007

6:01 p.m.

Reported by:
Peter Petty
Contract No. 170-07-002

COMMITTEE MEMBERS PRESENT

John L. Geesman, Presiding Member

Jeffrey D. Byron, Associate Member

HEARING OFFICER AND ADVISORS

Paul Kramer, Hearing Officer

Gabriel Taylor, Advisor

Raoul A. Renaud, Hearing Office

STAFF AND CONSULTANTS PRESENT

Dick Ratliff, Staff Counsel

Lance Shaw, Project Manager

James S. Adams

Eric Knight

Matthew Layton

Shaelyn Strattan

Alvin Greenberg

William Walters
Aspen Environmental Group

PUBLIC ADVISER

Michael Monasmith

INTERPRETER

Priscilla Figueroa

APPLICANT

Greggory Wheatland, Attorney
Ellison, Schneider and Harris
on behalf of Calpine Corporation

APPLICANT

Mike Argentine, Project Manager
Calpine Corporation

Gregory S. Darvin
Atmospheric Dynamics

Douglas M. Davy
CH2M HILL

Marshall W. Graves, Jr.
International Institute for Aviation, Science
and Technology
on behalf of CH2M HILL

Christine Killip
Katestone Environmental

INTERVENOR

Paul N. Haavik, Property Manager
Checkaboard Square Rentals, Inc.

David Stark
Bay East Association of Realtors

Carol Ford
San Carlos Airport Pilots Association
California Pilots Association, Region 3

ALSO PRESENT

Jesus Armas, City Manager
City of Hayward

Bob Nishimura
Bay Area Air Quality Management District

Cindy Horvath
Alameda County Land Use Commission
Alameda County Community Development Agency

Audrey LePell
HASPA

Robert McDonald

ALSO PRESENT

Joanne Gross

Wafaa Avorashed
Healthy San Leandro Environmental Collaborative

Dennis DuBose

Jason Moreno
Healthy San Leandro Environmental Collaborative

Barbara Vierra

Connie Liranzo-Jordan

Robert Strauss
Eden Area Foundation

Juanita McDonald

Andrew Wilson

Joanne Gardiner

Michael Toth

J.V. McCarthy

Charlie Cameron

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P R O C E E D I N G S

6:01 p.m.

PRESIDING MEMBER GEESMAN: This is a meeting of the California Energy Commission's Siting Committee. It's the evidentiary hearing for the amendment to the license for the Russell City Energy Center project.

I'm John Geesman, the Presiding Member of the Commission's Siting Committee. And two seats to my right is Commissioner Jeffrey Byron, the Associate Member. In between Commissioner Byron and me is Paul Kramer, the Hearing Officer, who will conduct tonight's proceeding. Paul.

HEARING OFFICER KRAMER: Thank you. Also up here on the dais to my far left is Raoul Renaud; he's a new Hearing Officer in our office and he's here to assist and also to observe this proceeding.

And to my far right here in the main area is Gabe Taylor, who is Commissioner Byron's Advisor.

We'll ask the parties to identify themselves. They're all seated off to my right. Starting at the end with Mr. Ratliff.

MR. RATLIFF: I'm Dick Ratliff, the

Counsel for the Energy Commission Staff.

MR. SHAW: Lance Shaw, Compliance Project Manager.

MR. ARGENTINE: I'm Mike Argentine with Calpine. I'm the Project Manager for the Russell City Energy Center.

MR. WHEATLAND: I'm Gregg Wheatland; I'm Counsel for the applicant.

MR. HAAVIK: Paul Haavik, Intervenor.

HEARING OFFICER KRAMER: Thank you. Before our dinner break this evening we had a prehearing conference this afternoon at which we discussed some of the procedural issues and housekeeping items. So I believe we are ready to go with the testimonial portion of our evidentiary hearing unless the parties have any additional issues they want to raise as far as housekeeping matters go.

MR. RATLIFF: Yes. Mr. Kramer, after the prehearing conference the applicant pointed out likely that there are several deficiencies in our errata. And I wanted to point those out and suggest that we address those now.

We have separately brought the sections for hazardous materials and for worker safety and

fire protection here. And we would like those to marked, as well.

And the applicant pointed out we do not have a section on waste. That is an omission. But we have agreed to the changes the applicant requested in the waste conditions in all cases, except for the condition waste-10, where we worked out specific language in consultation with the Regional Water Quality Control Board. And the applicant is in agreement with that language. And we will submit that language as a separate exhibit. And we request an exhibit number for it. We do not have the language with us tonight.

HEARING OFFICER KRAMER: So that would be language regarding what, again?

MR. RATLIFF: Waste-10, condition 10. And that is a condition which in essence says that any cleanup at the project site will be subject to the review and comment of both the City of Hayward and the Regional Board. And that the conditions that the Regional Board would apply through what I think they call their San Francisco Bay Management Plan would have to be met prior to construction. And the cleanup plan that would be approved.

HEARING OFFICER KRAMER: Okay, anything

else?

MR. RATLIFF: One small correction to the conditions in transmission line safety and nuisance. Conditions of certification number 1 has the term Southern California Edison and it should just be deleted.

HEARING OFFICER KRAMER: Okay, so as far as exhibits go, then the staff errata is exhibit 101. Exhibit 102 was the final determination of compliance from the Air District that you submitted yesterday, correct?

MR. RATLIFF: Yes.

HEARING OFFICER KRAMER: Okay. Then earlier we discussed the series of agency comments that came in on the aviation issue. And during the break you provided copies of a July 18 letter to Jim Adams from the Federal Aviation Administration signed by Joseph Rodriguez, along with a July 17 letter from the Aircraft Owners and Pilots Association, again to Mr. Adams, signed by Bill Dunn. And a July 18 letter, again to Mr. Adams, from the California Department of Transportation, Division of Aeronautics, signed for Gary Cathey. Those will be exhibit 103.

And then today, or late yesterday, you

had additional comments from Mr. Greenberg on two topic areas.

MR. RATLIFF: Hazardous materials management and worker safety and fire protection.

HEARING OFFICER KRAMER: Okay, and those were meant to be added to the errata?

MR. RATLIFF: Yes, they are.

HEARING OFFICER KRAMER: Okay, but --

MR. RATLIFF: And those are available today, outside.

HEARING OFFICER KRAMER: Those will be exhibit 104. And then we will reserve exhibit 105 for the waste-10 additional language that you mentioned a moment ago.

Are there any additional documents we should add to the list?

MR. RATLIFF: I certainly hope not.

HEARING OFFICER KRAMER: Okay. Any other housekeeping items from the parties?

Okay, then let's move to the evidentiary hearing. This first part is designed to take those items that have no controversy between the parties, and dispense with them without testimony. We will take public comments, however, so I don't want the public to feel that they will not have an

opportunity to be heard.

But we will dispense with any reading or oral testimony from the witnesses and just have the parties submit their evidence by stipulation.

Those areas are biological resources, cultural resources, noise and vibration, socioeconomic resources, soil and water resources, transmission line safety and nuisance, visual resources, waste management, facility design, geology and paleontology, power plant efficiency, power plant reliability, transmission system engineering, reconductoring, general conditions and alternatives.

And I believe that although we earlier today thought that worker safety and fire protection would need to be moved to a separate discussion, you discovered that -- I was told during the break that Mr. Greenberg's evidence, which is exhibit 104, would obviate the need to do that, is that correct?

MR. RATLIFF: That's correct.

HEARING OFFICER KRAMER: So we will add worker safety and fire protection to that list that I just read, as it was in the original, in the agenda.

And for members of he public I should have mentioned a couple of housekeeping items. One is that I believe we still have some copies of our agenda on the table outside the back for you to look at and follow along, if you choose.

Secondly, Mr. Mike Monasmith is here from the Public Adviser's Office. His job is to help members of the public with questions about how to participate in our process; how to get information; and other aspects of participating in this amendment process.

He also has blue cards that we'd like you to fill out if you'd like to make a public comment. It helps us organize things. And if you can, if you want to talk about a particular topic, as some of you have done, you can note it in the remarks section of the card. You're not required to fill out a card, but it's just helpful to us to have one so that we know you want to speak and make sure we don't overlook you.

Thirdly, if anyone here would like to have a Spanish translation of these proceedings, we have Ms. Priscilla Figueroa. Could you raise your hand? She's sitting over there on my left side. And she is able to provide you with a

Spanish translation if you would like it. So, please see her if that is your desire.

Okay, back to the evidence. First order of business should be to have our witnesses sworn. So if everybody who is intending to testify this evening can stand and raise your right hand, the court reporter will swear you in.

Whereupon,

ALL PROSPECTIVE WITNESSES

were thereupon duly sworn.

HEARING OFFICER KRAMER: Mr. Wheatland, would you please summarize the documents that you wish to introduce into evidence regarding the topics that I just listed a minute ago.

MR. WHEATLAND: Yes. We have prepared a number of exhibits. The exhibits that we are offering are exhibit 1, the amendment to our petition; it's called amendment petition number 1. And it was the amendment that we filed originally last November.

In addition we have exhibit 2 on the subjects of engineering, transmission system engineering, transmission safety and nuisance, compliance.

And exhibit 3, air quality is a topic

we'll get to in a few minutes.

Exhibit 4, biological resources.

Exhibit 5, cultural resources.

Exhibit 6, geology and paleontology.

Exhibit 7, hazardous materials that we will get to in a few minutes.

Exhibit 8, land use.

Exhibit 9, noise.

Exhibit 10, public health, which we will get to in a few minutes.

Exhibit 11, socioeconomics.

Exhibit 12, soil and water resources.

Exhibit 13 deals with traffic and transportation issues.

Exhibit 14, visual resources.

Exhibit 15, waste management.

Exhibit 16, worker safety and fire protection.

And then in addition we have several exhibits that are responses to the CEC data requests during the course of this proceeding. These are exhibit 17 through exhibit 20.

We also have a response, exhibit 21, which is a response to the Department of Toxic Substances Control letter.

And exhibit 22, exhibit 23 are also supplemental information that would be related to those topics.

And I think that completes the list of exhibits that would relate to the matters that are on your list in those subject areas.

HEARING OFFICER KRAMER: Thank you. Mr. Ratliff for the staff.

MR. RATLIFF: Yes. The staff has the following exhibits:

Exhibit 100 is the staff assessment.

Exhibit 101 would be the errata to that assessment.

Exhibit 102 is the Air District's final determination of compliance, which the staff is sponsoring into evidence.

Exhibit 103 is the hazardous materials errata. In conjunction, I believe you said, with the worker safety and fire protection, is that correct?

HEARING OFFICER KRAMER: Yes, I think that's number 104, though.

MR. RATLIFF: Oh, that's 104 -- oh, that's right.

And 105 is the marked exhibit for the

final language of waste-10 condition.

HEARING OFFICER KRAMER: Mr. Haavik, did you have any exhibits?

MR. HAAVIK: Yes, I did.

Exhibit 200 is the 2006 air monitoring network plan by the Bay Area Air Quality Management District.

Exhibits 201, 202, 203, 204, 205 and 206 are also part of the staff assessment as exhibits by CEC Staff. And they're associated with air quality, public health, hazardous materials and visual resources and land use.

And my last was the exhibit of my prehearing conference testimonies for two of my witnesses, Carol Ford and David Stark.

Thank you.

HEARING OFFICER KRAMER: Okay, did the parties want to have any discussion of any aspect of these topic areas? Mr. Haavik, you mentioned visual resources, for instance. Did you wish to present any testimony or ask any questions?

MR. HAAVIK: I wanted to ask a question of the visual resource CEC Staff. And that would be --

MR. RATLIFF: Eric Knight.

MR. HAAVIK: -- Eric Knight. Is Eric present?

MR. RATLIFF: Yes.

MR. HAAVIK: Okay. And does Eric come forward or --

HEARING OFFICER KRAMER: Yes, we need --

MR. HAAVIK: -- just have him --

HEARING OFFICER KRAMER: -- for the staff and anyone testifying, also for members of the public, we need to get you at one of these microphones here so that you'll be recorded by the court reporter and your comments will appear in the transcript.

Also, when you first come to the microphone if you could spell your name, your first name if you think it needs to be spelled to be recorded correctly, and your last name for the benefit of the court reporter; or give him a business card. And that way your name will be correctly spelled in the transcript.

CROSS-EXAMINATION

MR. KNIGHT: My name is Eric Knight. I'm with the Energy Commission Staff. Last name is spelled K-n-i-g-h-t, first name is E-r-i-c.

MR. ARMAS: Excuse me, Mr. Kramer. This

is also on cable, so they need to be near one of these microphones.

HEARING OFFICER KRAMER: Oh, yes. Go ahead, Mr. Haavik.

MR. HAAVIK: Thank you.

BY MR. HAAVIK:

Q Good afternoon, Eric; how are you today?

A Good.

Q Good. In part of the visual resources conclusions, Vis-8, there was an indication of the vapor plumes are considered to be well below 20 percent of the seasonal daylight clear hours, is that correct?

A That's correct.

Q There has been no discussion that I saw in that particular area of your report that plumes at anytime that may obscure a pilot's vision during direct flight overs. I was going to ask about the possibility of visual plumes obscuring any view of, in the air, pilots or blimps or birds or whatever.

But the whole issue is that I didn't see anything to say, yes, there are, about 20 percent, or less than 20 percent of the time, visual plumes and how obscure are they, or would they be?

A The assessment of whether or not visible plumes would be a threat or hazard to air navigation is addressed -- is typically addressed in the traffic and transportation sector, not in the visual resources section.

Visual resources is solely addressing whether or not the visible plumes would present an adverse effect on the visual resources of the community. So would it block from view scenic resources, resources in the viewshed that are held as valuable to the community.

Q In that viewshed I also indicated here that would there be a possibility of an eyesore to the general public in regards to viewing, let's say, Mount Diablo or viewing some other areas from the shoreline that is heavily public thoroughfare while walking, not necessarily driving, but while walking.

A The staff's methodology is that we do a computer modeling exercise based on information on the operation of the facility, meteorological information from the surrounding area. And if the visible plumes are predicted to occur less than 20 percent of the seasonal daylight, no rain, no fog hours, they are typically determined to be a less

than significant visual impact under CEQA.

If they occur greater than 20 percent of the time we'll do an assessment as to what effect those plumes, those plume sizes would have on the viewshed.

In this case the applicant has proposed a plume-abated cooling tower. That was the proposal from the original case. They have not proposed any changes to that.

The visible plume's occurrence, we modeled that plume-abated tower back in the original case. And the amount of hours when there might be a visible plume from that cooling tower is about three hours a year.

So because of this very extremely low occurrence, they were ruled to be an insignificant impact under CEQA.

And then for the HRSG, the heat recovery steam generator, the plumes, as I recall -- I have to go back and find it, but it also was under very few hours of the year, something like 60, 70 hours a day during the seasonal -- the clear hours that we're concerned with. Not a rainy day; not a foggy day, which would tend to obscure a visible plume.

So the amount of hours was so low, again, that we ruled tended to be an insignificant impact. So they would not degrade the quality of the view. And their blockage of anything like Mount Diablo would be so rare that it would not be a significant impact under CEQA.

MR. HAAVIK: Thank you very much.

HEARING OFFICER KRAMER: Any questions from the Committee? Thank you, Mr. Knight.

Did you have any other witnesses, Mr. Haavik, that you wished to --

MR. HAAVIK: Not for visual.

HEARING OFFICER KRAMER: One of the members of the public who filled out a blue card indicated a concern with visual resources. Audrey LePell. Did you wish to speak about that, or were you just indicating a concern?

MS. LePELL: Good evening, members of the Commission and staff. My name is Audrey LePell and I live in Hayward, 299 Ocie Way, Hayward.

MR. SPEAKER: Could you spell your last name.

MS. LePELL: L-e-P-e-l-l. One of the reasons I came is because, as I mentioned to you,

Mr. Kramer, earlier, I'm a member of an organization called HASPA. I'm on the citizens advisory committee; I have been on that committee since it was founded over 30 years ago.

HASPA is a JPA, joint powers agreement, between the City of Hayward, East Bay Regional Park District and HARD, Hayward Area Recreation District.

At one time in 2002 when the original Calpine plant was presented, our citizens advisory committee recommended to the JPA that this power plant was not appropriately to be put on a piece of property that is near our shoreline.

The HASPA citizens advisory committee is extremely protective of the shoreline. And any properties or buildings or anything like that are looked at carefully. And since I've been on that citizens advisory committee for a very long time, I'm not the chairperson, we have two chairs. I talked to Janice Delfino, who's one of the co-chairs, last week before I came to the meeting last week.

And we have concerns about the visual effects among all the many concerns that were expressed in 2002 about the second power plant.

So to say it in a more succinct way, we feel the power plant is not appropriate for our shoreline because of the effect of the fly-way from South America to Alaska; because of the visual impact; because of air problems; because of noise; because of other pollutants; and because we think it's not the right place for our shoreline.

But more than that, in terms of visual resources, we find that it is not visually acceptable. And at one time there was a -- we called it a wave, something in the way of the Opera House in Sydney, Australia. And as you know, art is in the eye of the beholder sometimes. And it was made to look more acceptable. Some people call it a bird's wing. Some people call it a wave.

But most of us said it looks like a power plant with some screen over it. And there were concerns about the raptors and birds alighting on it. And we felt it was not acceptable. And I, as a citizen of Hayward, feel aesthetically it doesn't look good as a power plant, and it shouldn't be there.

Now, I have other comments in other areas, but I think I will stop at this point.

Thank you.

HEARING OFFICER KRAMER: Were you aware that the -- correct me if I'm wrong, Mr. Shaw, but I believe the wave has been removed from the project, is that right?

MR. SHAW: That's correct, it has been.

HEARING OFFICER KRAMER: So it's no longer being required by staff -- recommended.

MS. LePELL: Beg your pardon?

HEARING OFFICER KRAMER: The wave, you know, the cladding you described, is no longer part of the project.

MS. LePELL: I'm aware of that.

HEARING OFFICER KRAMER: Okay.

MS. LePELL: And that's why I said the design is still not acceptable, --

HEARING OFFICER KRAMER: So either way, you --

MS. LePELL: -- whether there's a wave or not.

HEARING OFFICER KRAMER: Either way you are unhappy with it?

MS. LePELL: Well, it's not very attractive. I think you could call it a piece of sculpture, but I think the art community would

have problems with that possibly.

HEARING OFFICER KRAMER: Thank you.

MS. LePELL: Thank you.

HEARING OFFICER KRAMER: Let's see, Bob McDonald, you indicated you wanted to talk about ammonia and fish, which I think would apply to the biological resources element. So now would be the time for your public comments.

MR. McDONALD: I'm here to talk about the effects on humans and also on the fish and bird life that was mentioned earlier --

HEARING OFFICER KRAMER: Could you please first state your name for the record.

MR. McDONALD: -- of exposure to --

HEARING OFFICER KRAMER: Could you say your name first?

MR. McDONALD: -- the -- pardon?

HEARING OFFICER KRAMER: Say your name for the reporter.

MR. McDONALD: Yeah. And the OSHA limit for personnel exposure --

(Parties speaking simultaneously.)

MR. McDONALD: -- limit --

MR. SPEAKER: Please identify yourself by name; thank you.

MR. McDONALD: Oh. Robert McDonald. I thought you had the blue card. Robert McDonald, and I'm a retired engineer.

The personnel exposure limit that OSHA applies is 50 parts per million. In Europe, which is a little bit smarter than us, they've lowered that to 35 parts per million.

What happens if you get high exposure to the ammonia is your skin and eyes are attacked. And which can be severe. Sore throat, abdominal pain, nausea if you ingested anything where the discharges got into the liquids, is you will get nausea.

Coughing, labored breathing. It's a big cause of starting off of asthma. Inhalation can result in lung edema; that is the filling of the lungs with bodily fluids. And you can drown.

But the symptoms often are delayed, up to a few hours. Physical exertion during this period can aggravate the symptoms when they do appear. Rest and hospitalization are necessary. And that's at 50 parts per million.

Now, in the fish and wildlife, which was mentioned earlier, that level is minute. Ammonia is toxic to fish, both freshwater and marine fish,

at .03 mg/liter. What happens is ammonia blocks oxygen transfer in the gills of fish, thereby causing immediate and long-term gill damage.

Fish suffering from ammonia poisoning will appear sluggish and come to the surface as if gasping for air.

The U.S. Environmental Protection Agency recommends a limit of .02 parts per million for ammonia in fresh water or marine environments.

So you can see the big difference between the fish and the humans. They're talking .02, .03, whereas the OSHA limit is 50.

Now, how you can protect against the fish being overwhelmed if you're going to be running the rest of the plant at 50 parts per million, I don't know how. If you can get the limit down to .02 or .03 parts per million then you might do it. But that is up to the designers and the engineers to figure out a way to do that.

I thank you for your time.

HEARING OFFICER KRAMER: Thank you. Okay, I have no other requests to speak that appear to be on the group of topics that we're covering at the moment. Does anybody who has not filled out a card want to speak about any of those

topics? Ma'am, come forward.

MS. GROSS: Hi, my name's Joanne Gross. I'm a Hayward resident. And I want to state from the outset I'm absolutely against both of the plants.

I just wanted to make a quick comment about the visual resource report, because I think the pictures in the report are fraudulent, because they don't really show what these plants are going to look like when they're in operation.

Every one of the simulated pictures in here shows the plant, well, I guess, you know, like right after it's just been built, and what it's going to look like to people is having the steam and the emissions coming out, which is not attractive.

I've spent many happy times with my children riding my bike and hiking at the Shoreline Interpretive Center. And I just find it really upsetting to imagine looking at those plants there.

I also wanted to ask about the socioeconomic resource report, because I don't see anything in here about the issue of environmental justice. Some of us residents have spoken about

it. Nobody has really answered the question about why Hayward. Why are both of these plants being proposed for Hayward?

I've been a school teacher for many years, and actually for the past 26 years I've taught in Pleasanton at, you know, very upper middle class high school. And in the summertime I teach at juvenile hall. So I've seen the disparity between the quality of life in the Trivalley area versus well, what kids and families have to deal with here.

And I was just wondering why in the socioeconomic report, why is there nothing there about the concept of environmental justice. I just know that people in Pleasanton and Dublin -- Piedmont, Los Gatos, I know that they would not tolerate having power plants built in their neighborhood.

I mean, granted there is not that much industry there. But, for example, I know in Pleasanton there's a semi-industrial area at the end of town. There's no way that a power plant would be built there. And I just think it's very unfair that both of these plants are being proposed for my hometown.

So, can anybody tell me why hasn't environmental justice been addressed in this report? Or where would it be? Would it be under socioeconomic resources section?

MR. RATLIFF: If I may, this actual -- the proceeding we're in now has to do with an amendment to an earlier decision. And the earlier decision did look at potential for an environmental justice effect. And concluded in that report that there were no environmental impacts which were in the nature of creating an environmental justice effect.

Although we are now concluding that there is a significant effect, it is an aviation hazard effect and doesn't really pertain to environmental justice, itself.

So, we --

MS. GROSS: I understand that. I just disagree with it.

MR. RATLIFF: Okay.

MS. GROSS: So I just wanted to say that. Thank you.

HEARING OFFICER KRAMER: Thank you. Did you want to make a public comment, ma'am? Please come up.

MS. AVORASHED: My name is Wafaa Avorashed and it's spelled W-a-f-a-a, last name is A-v-o-r-a-s-h-e-d. And I represent an organization called Healthy San Leandro Environmental Collaborative. And I'm a member of the Bay Area House Collaborative, as well.

And we're very concerned on the visual perspective because of the shorelines. We live in San Leandro and our shoreline has waste management, has a lot of polluters that actually occupy the whole shore.

And across from that shore we have the Oakland Airport. So, visually they've messed up. And I think it's incumbent upon you to look at what are we actually doing with our shores. How many of the people can actually go out and enjoy that shore.

You have a lot of environmental racism when you put a plant next to communities; and most of it is also surrounded by people of color, low income. And those are the kind of things that we're concerned about. When you look at what San Francisco did by building the power plant right next to the shore, what happened to Bayview/ Hunter's Point? How long did it take for

environmental justice groups to close that down? What have those people been affected with healthwise? Where is the environmental justice there?

It needs to be part of your plan, number one, when you're dealing with communities that live in those areas. You chose not to do one, but two. That is sad for your planners, for the land use commissioners to allow something like that to happen in this community.

We're already impacted by a lot of air quality emissions in this area. Look at your hospital statistics. How many people are actually going to the hospitals today because of all the health impacts?

I think it's important for you to look at, not only what's going on with the airport, but you look at all around what's happening with the communities that you represent. And why do we need to suffer?

Just like the person that spoke before, why aren't you putting it in Walnut Creek? Why don't you put it in some of those areas that are more educated and not so diverse, and educated people, if they are that.

So, I would say, this is one of my first comments that I'm going to speak on. Thank you.

HEARING OFFICER KRAMER: Thank you. Any further public comments on the topics that are presently before us? Go ahead, sir.

MR. DuBOSE: Yes, Members of the Commission, good evening. My name is Dennis DuBose; last name is spelled D, as in David, -u-B, as in boy, -o-s, as in sugar, -e. And I live at 2183 Thayer Avenue here in Hayward, which is right directly across the street from the Eden Gardens Elementary School. And I mean right directly across the street. My front door is exactly opposite the front door of the school.

And I've got a couple questions. Number one is, you know, I still cannot get it through my thick skull as to why the Bay Area Air Quality Management District would allow anybody to dump tons and tons and tons of pollutants into the air.

I think the school is what, like 1500 feet, as the crow flies, from the power plant. I mean that's the pollutants, plus the ammonia. Now, PG&E, being a public utility, I would be curious as to find out why they don't ask some of the folks that bought their generating plants up

north, up around Burney, up in that area by the Pit River, if I recall correctly from my years of working with PG&E, they had something like seven power stations on the Pit River, by itself.

Why can't they ask whoever owns those now to go ahead and beef up the lines, you know, the lines, to go ahead and give more power available here to the Bay Area?

That's all I can think of for right now. Thank you very much for your time.

HEARING OFFICER KRAMER: Thank you. Any other public comments?

Okay, seeing none, do the parties wish to move their exhibits they previously identified into evidence?

MR. WHEATLAND: Before we move it in I'd like to make one comment on transmission system engineering.

Hearing Officer Kramer had made the suggestion of an additional condition that is typical in some of our other Commission decisions that would state that in the event that the gen-tie line is constructed by PG&E, that certain specified transmission system engineering conditions would not apply.

That type of condition would be acceptable to the applicant as an approach to that section. And I believe that staff may also wish to comment on it.

MR. RATLIFF: We agree that if maybe -- I don't know how you write the condition, but if you put a qualifier in the conditions that indicate that it applies only when a non-investor-owned utility is building and owning the line, then we have no objection to that kind of a change in the conditions.

HEARING OFFICER KRAMER: Well, I would suggest then that we hold the record open for an exhibit 106 to be sponsored by staff and prepared by both parties, where you could do that work of modifying the conditions to the satisfaction of both parties. I think I would prefer that rather than try to do that for you or to you, as you will.

MR. WHEATLAND: Thank you.

HEARING OFFICER KRAMER: So that would be various transmission system engineering conditions.

PRESIDING MEMBER GEESMAN: Did you have an earlier precedent in mind that you might point

them to?

HEARING OFFICER KRAMER: Don't remember which case it was.

Commissioner Geesman asked me if I could remember the case I was thinking of earlier, and I can't at the moment. If I do, I'll send you an email. But you may -- the general form of the conditions has probably changed over time, so you need not copy anything that comes out of my memory banks. I'll leave it to you to work it out.

So, with that, do the parties wish to move their exhibits into evidence?

MR. WHEATLAND: Yes, at this time I'd like to move into evidence exhibits 1 through 22. And I'm reserving the exhibits on the thermal plume issue until we come to that topic area.

MR. HAAVIK: And for the intervenor, exhibit 206 -- excuse me, 205. Excuse me, 205.

HEARING OFFICER KRAMER: I thought those were -- because that referred to the staff analysis that's already --

MR. HAAVIK: Staff assessment. And if we are including those all in the CEC exhibits, then I concur, that's fine.

HEARING OFFICER KRAMER: Okay, well,

let's see if Mr. Ratliff moves, among other things, exhibit 100 into evidence.

MR. RATLIFF: We do, we move 100 through 106, as well. Keeping in mind that we still have to provide 105 and 106.

HEARING OFFICER KRAMER: Okay. So then Mr. Haavik you would not need to move anything in, is that correct?

MR. HAAVIK: Correct.

HEARING OFFICER KRAMER: Okay, any objections to any of those exhibits from any other party?

Seeing none, those exhibits just identified are received into evidence on this date.

We'll now turn to the first of our separately considered topics, which is air quality. As I understand it, the parties have, at most, minor differences as far as the language of conditions goes.

But the Committee wanted staff to give a brief summary of its methods of analysis and conclusions for the benefit of the public.

And then after that we will take testimony from the other parties following staff,

and then receive questions and comments from the public.

MR. LAYTON: Do you want the District up here, as well?

HEARING OFFICER KRAMER: And we also have a representative from the Air District. Mr. Layton, did he wish to testify, do you know?

MR. LAYTON: The District? I guess to enter the FDOC into the record.

HEARING OFFICER KRAMER: Right. The staff's already sponsored the FDOC, but you're correct, I do have one question for him before we are done with this topic. But, go ahead.

DIRECT TESTIMONY

MR. LAYTON: Good afternoon; my name's Matthew Layton, Energy Commission air quality staff. I'm here on the part of Tuan Ngo who, he and I wrote the final staff assessment for this particular amendment.

The original project was certified back in 2002, I believe. The project owner is proposing to move the project 1300 feet to a different site. The project is still the same from the air quality perspective, same size, 500 megawatts nominal; uses the same emission control

systems to reduce the oxides of nitrogen, the CO and the carbon monoxide and the precursor organic compounds. And uses natural gas to reduce the emissions of sulfur dioxide and also particulate matter.

The project, while being the same from the original project, did change its operational profiles a lot. They were proposing to respond to the needs of PG&E. They were proposing more frequent startups and shutdowns.

The emissions profile on a daily basis changed significantly from the original proposal. Tuan and I worked with the applicant to work out some conditions to try to minimize the emissions during startups; shorten the startup links; shorten the number of startups that occur.

And so now the startups and the emissions that result from that are closer to the mitigation that is being offered up by the applicant.

While the applicant did change the operation of this facility, they didn't propose to change the total emissions per year. So what they had proposed in the way of mitigation from the original project is still the same. So that's the

limiting amount, kind of limits the operation of this particular unit.

If the applicant does choose to start this facility up a lot they will consume a lot of those emissions during startups and have shorter operating hours subsequently.

The applicant has offered up emission reduction credits to mitigate the emissions of this project in the form of NOx ERCs, oxides of nitrogen, and precursor organic compound emission reduction credits. They are not required by the District rules to surrender emission reduction credits for particulate matter or sulfur dioxide. However, staff, under CEQA, is looking to mitigate those particular emissions. So we are requiring offsets for the sulfur dioxide emissions and also for the PM10 emissions.

In this case the applicant is proposing a wood stove or fireplace replacement program to provide wintertime PM10 when PM10 emissions are high and PM10 air quality is poor in the Bay Area.

In some cases about 30 percent of the particulate matter on a winter day is from wood stoves. So, we think that the wood stove program could provide very good emissions reductions, very

appropriate for when the air quality is really poor in the area, and when this power plant might affect air quality.

So we are working with the applicant. The applicant has submitted a -- proposed a draft PM10 mitigation plan, wood stove replacement plan. We got it, I believe, Tuesday. So, we haven't had a chance to comment on it yet, but the substance of the plan is contained in one of our conditions which requires 43 tons approximately of PM10 to be reduced for wintertime PM10.

If the applicant cannot get the wood stove program to work -- we have seen some success and some failures in wood stove replacements -- we are proposing that they surrender emission reduction credits to take care of the particulate matter emissions from this project.

HEARING OFFICER KRAMER: Thank you. Mr. Haavik, did you have any questions of this witness?

MR. HAAVIK: Yes.

CROSS-EXAMINATION

BY MR. HAAVIK:

Q In regards to an exhibit that you may be familiar with that I submitted, it is the 2006 air

monitoring network plan from the Bay Area Air Quality Management District. Are you familiar with that, Matt?

A I have looked at it, yes.

Q Thank you. In one of the statements that were made in the report that you and Tuan prepared, there was an indication of a lack of monitoring in certain areas which included full monitoring in Concord and then a lack of other monitoring in other areas.

In view of the fact there's only a ozone monitoring station in Hayward, it was the intent of the air monitoring network plan to submit their new plan with the same style of ozone monitoring station in Hayward.

I was concerned and was asking of the CEC that possibly shouldn't there be a full monitoring station in Hayward in view of the implementation of this proposed power plant and its emissions, to closely monitor the effects here in Hayward, seeing as there's multiple types of emissions here.

A The section you refer to in the final staff assessment where Mr. Ngo was referring to a lack of monitoring data, it was in regards to

trying to calculate a sulfur dioxide from particulate matter interpollutant trading ratio.

And for some of the sites in the Bay Area where there's monitoring data about particulate matter, there is not monitoring data on sulfur dioxide.

So what Tuan was trying to do, Mr. Ngo was trying to do was to make sure that when he was trying to calculate the interpollutant trading ratio he was using a site that had both particulate matter and sulfur dioxide. So the discussion that you're referring to is just in regards to that.

Other than that we think that the air monitoring network does represent the ambient air quality in Hayward.

Other questions about the monitoring program I think I would refer to the District.

Q Thank you.

HEARING OFFICER KRAMER: Mr. Wheatland, did you have any questions of this witness?

MR. WHEATLAND: No, I do not.

HEARING OFFICER KRAMER: Okay.

EXAMINATION

HEARING OFFICER KRAMER: The

representative from the Air District, could you identify yourself? I have at least one question for you, and the parties may have, as well.

MR. NISHIMURA: My name is Bob Nishimura, N-i-s-h-i-m-u-r-a. I'm a air quality supervising engineer with the Bay Area Air Quality Management District.

HEARING OFFICER KRAMER: My question for you is specific to a Commission statute that requires a particular certification from the air district for any project, and that is that I want to ask you if it is the District's position, and would you certify that complete emissions offsets for this proposed facility have been identified and will be obtained by the applicant within the time it is required by the District's rules?

MR. NISHIMURA: Yes. In the FDOC they have identified some offsets. And they have to surrender a banking certificate of those offsets before we issue the authority to construct.

HEARING OFFICER KRAMER: So the District is satisfied with their offset package?

MR. NISHIMURA: That is correct.

HEARING OFFICER KRAMER: Thank you. Any party have any questions for this witness?

PRESIDING MEMBER GEESMAN: I've got a question for Matt.

HEARING OFFICER KRAMER: Go ahead. Mr. Geesman.

EXAMINATION

PRESIDING MEMBER GEESMAN: Matt, back on the fireplace replacement or wood stove replacement program, it's my impression from having read the materials that after 12 months eligibility for the program, it would extend countywide in Alameda County?

MR. LAYTON: That's correct.

PRESIDING MEMBER GEESMAN: What's the rationale for that?

MR. LAYTON: We think the wintertime PM10, there's a strong nexus between wood smoke and exceedances of particulate matter air quality standards. Reducing wood smoke will improve the air quality throughout the region, in particular in Hayward. Hayward only has 140,000 residents. We're not sure if we can get enough participation.

But we have in the condition timelines, milestones. After 12 months if they haven't reached any of the milestones they have to surrender emission reduction credits. Because we

want the emissions reductions to be in place prior to start of this facility.

PRESIDING MEMBER GEESMAN: Is it your believe that particulate emissions from the plant will, in fact, flow over the East Bay Hills during the weather conditions you're concerned with?

MR. LAYTON: In some cases, yes. Any new emission source will contribute to regional particulate problems. So particulate reductions in the East Bay will help throughout. Sometimes in the winter you do get reverse flow from the Central Valley into the Bay Area. But generally in summer the prevailing winds are from the Bay to the Central Valley.

So fireplace reductions in Livermore may not have a direct link, but will provide some emission benefits for the region.

PRESIDING MEMBER GEESMAN: You probably don't get that many fireplaces being operated in the summer, do you?

MR. LAYTON: Very few. You don't have particulate matter exceedances in the summer, either.

PRESIDING MEMBER GEESMAN: If a regional offset would be satisfactory to you, why the delay

of 12 months before the program is open to countywide eligibility?

MR. LAYTON: The City's been very active in this and they would like the citizens of Hayward to participate as fully, have as much opportunity to participate before others, that may have more economic advantage, take up the funds.

PRESIDING MEMBER GEESMAN: In terms of offsetting the particulate emissions that we should be concerned with from this particular plant would it be rational to confine eligibility for participation in the program to west of the East Bay Hills? There's quite a population south of Hayward that's still in Alameda County.

MR. LAYTON: I guess to be honest I can't answer your question why we chose Alameda County versus limiting it to a broader part of the East Bay.

PRESIDING MEMBER GEESMAN: Thank you.

HEARING OFFICER KRAMER: Matt, this program would be a voluntary program, correct?

MR. LAYTON: Absolutely.

HEARING OFFICER KRAMER: So nobody would be forced to participate or change their wood stove?

MR. LAYTON: They would not.

HEARING OFFICER KRAMER: Thank you. Did the applicant have any witnesses they wanted to provide with regards to air quality?

MR. WHEATLAND: We have our air quality witnesses available, but we don't have any planned presentation. If you have questions for them, they're available.

HEARING OFFICER KRAMER: Okay. The Committee doesn't. Mr. Haavik, you had identified a witness on --

MR. HAAVIK: I do have a witness for the fireplace retrofit program.

HEARING OFFICER KRAMER: Okay, if you could --

MR. HAAVIK: I'd like to call that witness, David Stark, please.

HEARING OFFICER KRAMER: Mr. Stark, were you sworn earlier?

MR. STARK: Excuse me?

HEARING OFFICER KRAMER: Did you take the oath earlier at the --

MR. STARK: Yes, I did.

HEARING OFFICER KRAMER: Thank you.

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DIRECT EXAMINATION

MR. STARK: David Stark, Government Affairs Director for the Bay East Association of Realtors. S-t-a-r-k.

BY MR. HAAVIK:

Q What is your role at the Bay East Association of Realtors, David?

A Mr. Haavik, I'm the Government Affairs Director for the Association of Realtors.

Q Thank you. And could you please explain what the Bay East Association of Realtors are, or what they do?

A The Bay East Association of Realtors is a 60-year-old trade association that represents professional real estate agents in southern and eastern Alameda County with a membership of approximately 6000. Many of whom are Hayward residents and do business within the City of Hayward and the area that will be impacted by this proposed development.

Q Could you give me a little bit about your background, being with the Bay East Association of Realtors and your personal qualifications?

A My personal qualifications include a

masters degree in city and regional planning from California Polytechnic University in San Luis Obispo. And more than 15 years of professional experience in the housing and community development industry, both in the public and private sector.

Q Okay. Do you also serve on several volunteer commissions in the area?

A Yes, I do. As a matter of fact I am currently missing the City of Pleasanton's Housing Commission, of which I'm a member.

Q I am sorry.

A That's all right.

MR. HAAVIK: As you may well know, as of two days ago or three days ago, Mr. Commissioners, when I filed for this testimony I was not privy to the PM10 presentation that I received yesterday early from the owner.

Since then I believe Mr. Stark has seen that proposal.

BY MR. HAAVIK:

Q Is that correct?

A I have not seen an official proposal.

Q Okay. There was a proposal made, and I would like to -- I believe that's going to be

brought into evidence, is that correct? Or no?

MR. WHEATLAND: We have not marked it as an exhibit. This is a draft fireplace replacement program that the applicant would implement on certification or approval of this amendment.

Typically those programs are completed after certification. But we distributed to the parties a draft of that plan as it is today.

BY MR. HAAVIK:

Q Okay, in that -- seeing as you have not seen that document or haven't read the document, Mr. Stark, maybe you could state the purpose of your testimony and why you're here today?

A I participated in the workshop last week with the sole purpose of learning more about this fireplace replacement program. And was told during that meeting that a draft of this program would be available the following day.

And since then I've not yet been able to receive the draft. Therefore, it's difficult for me, on behalf of my Association, to have an official stance on a document that I have not had the pleasure of reviewing.

But in the meantime I would like to repeat, for the record, the same questions and

issues that I articulated during the workshop last week. And if you can indulge me, I would like to read a list of those questions. These are, again, the same questions that I asked last week.

In regards to this proposed fireplace retrofit plan, and again, bear with me, you've had the pleasure of reviewing this document, I have not.

Who would implement and enforce this program? How many properties would be affected or would be eligible for the program? Would the proposed retrofit program be mandatory for homeowners? And I understand that that question has now been answered; but, at the time I did not have that information.

How will property owners be notified about the program and its requirements? What is the cost of retrofitting the fireplaces of the impacted properties? Will property owners be reimbursed for the full cost of the retrofits, including materials and any additional required professional installation?

Who is qualified to perform the retrofit work? And can it be completed by homeowners? What impact would retrofitted fireplaces or wood

stoves have on property values? How effective would such a program be in this area in mitigating the specific impacts of this project?

And finally, do we have any examples of successful implementation of similar programs with similar plans in similar communities?

Those are my questions from last week, and those questions still stand.

Q Thank you, Mr. Stark, I appreciate it.

MR. HAAVIK: I'd like to ask one question of Matt, if possible.

HEARING OFFICER KRAMER: Certainly.

MR. HAAVIK: And thank you very much for coming. I'm sorry you're delaying your other meeting.

MR. STARK: I'm available for questions; I can stick around for a few minutes if --

MR. HAAVIK: Thank you.

MR. STARK: -- the Commissioners have any questions. Thank you.

CROSS-EXAMINATION

BY MR. HAAVIK:

Q Matt, are you familiar with other retrofit fireplace programs in the Bay Area, the immediate Bay Area?

A Yes, I am.

Q Could you -- and I am not -- could you maybe describe a few of the successes or failures?

A The Pico facility, which now has a different name, it's the City of Santa Clara, built a small combined cycle. And that particular project did use fireplaces. It was successful. We think the economic basis in that area was higher, therefore more participation.

The Los Esteros facility down in Fremont or Milpitas, there wasn't much participation; so that was not a very successful program at all.

Q Okay, thank you very much.

MR. HAAVIK: No further questions.

MR. STARK: If the Commission could indulge me for one moment, I would like the record to be held open on this issue of fireplace retrofits. And please provide us with any further information about the program.

Again, I submitted my contact information with the expectation I'd be able to review this draft. Have not seen the document yet. And I don't know your procedures in terms of commenting in the future about this proposal, but we would certainly like the opportunity to weigh

in once that document's been made available.

Thank you.

HEARING OFFICER KRAMER: Well, let me ask you, because I don't think we would normally keep the record open for this kind of discussion.

As I understand it, the way this is set up is this program is to be developed by the applicant after and if they are approved. And then it normally would be submitted to the Commission staff.

If they knew of somebody like you who was interested in the program, they would also give you a copy and consider your comments.

But I think the only reason that this has gotten this far at this point is because this applicant is under some time deadlines and is trying to work on some of its after-approval requirements, or it's to-do list, if you will, you know, on not the assumption, but so that they will not lose extra time if they are approved. Is that correct, Mr. Wheatland?

MR. WHEATLAND: That is correct.

HEARING OFFICER KRAMER: But I don't believe it was the intention of staff to negotiate the exact terms of that program prior to the

licensing or the denial of the license for the project.

MR. RATLIFF: That's correct. I mean the condition that staff has proposed is essentially a performance condition. It says you have to get so many tons per year of particulates through this program, and you have to do it by the replacement by a certain number of fireplaces changed out.

Those are the performance standards that have to be met. If they're not met, then they have to provide emission reduction credits in place of those.

And the actual implementation of that through the replacement program, which they proposed to the staff, frequently follows that. And often isn't available until after the decision.

In this case it sounds like a draft version is available. But it's to implement the standard, which is a performance standard, which the Commission may adopt in this proceeding.

HEARING OFFICER KRAMER: So, Mr. Stark, let me ask you, would your needs be met by consulting with the compliance staff as they

review this draft in a separate process from this amendment proceeding?

MR. STARK: Well, it's difficult to answer that without actually seeing the document. And the gentleman's response actually speaks to some of our important concerns about this.

The program, as I understand it, is mandatory. But as the gentleman just responded, there's certain performance expectations that must be met. And I believe through a retrofit program.

PRESIDING MEMBER GEESMAN: I'm sorry to interrupt you, but I heard in response to Mr. Kramer's question, and certainly based on the types of programs we've approved before, that participation by the homeowner in the program would be entirely voluntary.

And I believe from reading some of the material filed with us, that the intervenor, and I think you, as well, may be under the misapprehension this is being proposed as a mandatory requirement on property owners. And I don't believe that to be the case, and I think Mr. Kramer clarified that.

MR. STARK: And I do appreciate the clarification, but again I can't comment on

something that's being proposed as mandatory when I haven't seen it. And I continue to hear that there's certain performance expectations that must be met, which leads me to believe that the voluntary may turn to mandatory.

And, again, without actually seeing that document --

PRESIDING MEMBER GEESMAN: When they speak of performance requirements that's on the applicant, the power plant owner.

MR. STARK: I understand.

MR. RATLIFF: Well, if you understand that, do you understand that it's a voluntary program for homeowners, then?

MR. STARK: That's what's been stated tonight. I haven't actually read it, though, so -- can understand my position, as well. I've got a membership that's going to hold me accountable for insuring this is truly a mandatory program. And until I can see that, it's not that I don't take your word for it, but again it would be nice to see it in writing if this is truly going to be a mandatory program. And I hope you can understand my concerns on that.

MR. RATLIFF: If it is a mandatory

program, and I assure you that it is, is your organization opposed to homeowners voluntarily participating in such a program?

MR. STARK: Until I see the details I can't comment on that.

MR. HAAVIK: Mr. Stark, I can have that copy for you in the morning.

MR. STARK: Thank you very much.

MR. HAAVIK: And I apologize that you did not have it for this afternoon, but like I said, we were just able to receive it just, you know, 24, 36 hours ago.

MR. STARK: I understand.

MR. HAAVIK: I do apologize. But thank you very much for your participation.

MR. STARK: And thank you for your consideration holding the record open, as well.

HEARING OFFICER KRAMER: Okay, and I would encourage you to give your card to Mr. Shaw so that he can share the draft with you, and perhaps get his card so you can communicate your thoughts about the program to him.

MR. STARK: Okay. Thank you very much.

HEARING OFFICER KRAMER: Thanks.

MR. LAYTON: Mr. Kramer, one of the

things we put in the conditions were these milestones. If, after three months, they haven't produced any tons of PM10 from the woodstove, they have to surrender the ERCs at that point in time.

Then the next milestone, the next tonnage interval or amount is now in play. But we're not going to ask them to go back and revisit their program, try to increase the amount of money offered.

Once they reach a milestone they either have to surrender the PM10 from the woodstove program or ERCs. At each milestone we expect something. We're not going to be modifying this, or trying to make it mandatory, or having the owner go back and try to revisit the program. This is a forced march. And at the end of, I think, 24 months, they will have the PM10.

HEARING OFFICER KRAMER: But the only person marching is the applicant, not some --

MR. LAYTON: Absolutely, but we --

(Laughter.)

HEARING OFFICER KRAMER: -- some randomly selected homeowner.

MR. LAYTON: -- well, we hope to do enforcement on this.

HEARING OFFICER KRAMER: Thank you.

Being the sort of random person that I am, I did not, at the beginning of this section, ask the parties to identify their exhibits or indicate if there are any -- if the air quality exhibits have already been identified and moved into evidence.

MR. WHEATLAND: Our air quality exhibit has been identified and moved into evidence.

MR. HAAVIK: Yes.

HEARING OFFICER KRAMER: Staff, I believe you moved all yours into evidence?

MR. RATLIFF: That's correct.

HEARING OFFICER KRAMER: Okay, thank you.

Now would be the time for public comment on the air quality topic. First I'll go through my cards. Jason, is it Moreno or -- Moreno, I'm sorry. Did you have a comment on air quality or was it another topic, you didn't indicate.

MR. MORENO: Air quality.

HEARING OFFICER KRAMER: Okay, please come forward.

MR. MORENO: Jason Moreno, spelled M-o-r-e-n-o. I reside at 1543 Highland Boulevard

here in Hayward. I'm here representing Healthy San Leandro Environmental Collaborative, an environmental justice organization. And by next year we hope to be expanding towards Hayward.

I'm speaking against the project's approval specifically with regards to the issues of oxides of nitrogen and pollution credits.

When I read the paragraphs regarding the issue of oxides of nitrogen I was taken aback at the generosity afforded the project owner. Since 1968 California drivers have had to pay more and more money for retrofit devices and new technologies, such as a three-way catalytic converter, to reduce the amount of oxides of nitrogen from the internal combustion engine. If approved, this project will negate the sacrifice of millions of California drivers.

Oxides of nitrogen, just to remind the public, is one of the components of photochemical smog that is hazardous to our health, responsible for a decrease in the production of crops, and has so many other negative impacts.

The most vulnerable population is the senior citizens. Hayward has a large component of senior citizens near the proposed location of this

dangerous project, who, without a doubt, will face increased health problems and/or premature deaths if approved.

Finally, for the public's benefit, pollution credits are not working in California. Pollution credits actually allow wealthy companies to pollute more than before pollution credits came to be, exposing local residents, many who are identified as low income, to ever-greater health risks.

So what this project will do is allow another company in another neighborhood to pollute more. How is this not an environmental justice issue? As the saying goes, you cannot fool all the public all the time.

Thank you.

HEARING OFFICER KRAMER: Thank you. Barbara Vierra, you didn't say which topic you were interested in speaking about.

MS. VIERRA: On air quality.

HEARING OFFICER KRAMER: Okay, please come forward.

MS. VIERRA: I live in Castro Valley. And I would just like to know, I read in The Daily Review that the Russell City Energy plant would be

depositing 33 pounds of nitrogen oxide, 40 pounds of carbon monoxide, 5.72 pounds of POCs, 3.1 pound of sulfur dioxide, and 23.2 pounds of PMTs in our air for each hour of operation.

Then I read the Russell City Energy little pamphlet here and it says that the Russell City Energy Center will result in a net improvement in the Bay Area quality of air.

So, how can we verify and measure this statement to know that our air quality will improve? So what do we measure this statement against? Like how do we know that?

Okay. And the other thing is since the above-mentioned emissions of this plant would be near highway 880, I would like to know if the diesel fuel discharged by the many trucks and auto emissions that use 880 were taken into consideration to this area.

And another thought I had on the biological studies. In the Hayward Hills they have to do biological studies if they're going to do a housing project. And there's like the California whipsnake, the green California frog and the salamanders. And I was wondering if in the 16 acres of where this project is going to be,

if they have to check to see if these endangered species are in this area.

Oh, also that Hayward sits on a fault, as everybody knows, and I just want to know if it's a required study under the Alquist-Priolo Act that you have to study where this plant's going to be sitting on the Hayward Fault. And at best, is there going to be a geological study?

And also the Bay wetlands. Does this have to do with the California Coastal Act?

And those are just a few thoughts that I had.

HEARING OFFICER KRAMER: Okay. Why don't you stay there for a minute. Staff may try to answer those questions, and you may have to -- you had about five or six in there, so they may not remember all of them.

MR. RATLIFF: I can only remember the last one at the moment. But, regarding the California Coastal Act, the California Coastal Act is for the other portions of the California coast. The Bay is subject to the San Francisco Bay Management Act, I believe it is, or protection act, which is implemented by the Bay Conservation and Development Commission. And it is outside the

jurisdiction of that agency, physically, I mean, it's located outside their jurisdiction.

What was the question before that? I'm not --

MS. VIERRA: About the earthquake.

MR. RATLIFF: I don't know the answer to that, but we have a section about geological hazard and the conclusion of that section is it complies with all applicable laws related to geological hazards.

MS. VIERRA: And the endangered species.

MR. RATLIFF: We have a biological resource section. The biological resources section is intended to examine all of the impacts on species. I know that the area where this is to be located, it's my understanding that it isn't inhabited by any endangered species.

I think you're talking perhaps, in any case, about the air quality impact to endangered species that live elsewhere.

It may be an answer which is not perhaps satisfactory to you, but the Federal Clean Air Act requires both primary standards for the protection of the health of people; and then secondary standards for the protection of animals and for

vegetation.

MS. VIERRA: Plant and wildlife -- I mean, plant and, you know, plants?

MR. RATLIFF: That's right. And the secondary standards are intended to protect plants and wildlife, as well. And this project has to comply with those standards to be licensed.

MS. VIERRA: And about the diesel fuel discharge from all the trucks on 880 mixing with your plant emissions?

MR. RATLIFF: Yes, that, when we do our air quality analysis we include the background, which includes the existing pollution from all sources, including traffic. I'm sure our witness can discuss that further, but generally speaking, yes. The answer is that the background, including Interstate 880 traffic, is included in that analysis.

MS. VIERRA: Okay. Well, I just want to say that I am against it. And my first question was about all the depositing of the emissions. Is that -- as the data review listed, is that still true? Or are these figures changing? The 33 pounds and the 40 pounds and all that.

MR. LAYTON: The emissions, on a pound-

for-pound basis, the applicant, or the owner, will provide about 1.15 pounds of NOx emission reductions for the right to be able to emit 1 pound of NOx.

MS. VIERRA: Okay, so does that make our air safer now? Or like does it make our air quality, as it states in your pamphlet, Russell City Energy pamphlet, will result in a net improvement of Bay Area quality?

Will that make our air better or will it make it worse?

MR. LAYTON: In this case the project owner is providing emission reductions for NOx, POC, SOx and PM10. They're not providing emission reduction credits for CO, carbon monoxide. It's not a pollutant that rises to the level of concern. It's in attainment for the region. It's very fast reacting in terms of the carbon dioxide, which is the global climate change gas.

But anyway, the air quality has improved in the Bay Area a lot. Emission reductions have worked. The emissions from the stationary sources throughout the region have gone down significantly. Emission reductions are part of that. And emissions from the mobile sector have

gone down significantly, as well.

So air quality has improved over time, even with new sources, a lot of new people moving in --

MS. VIERRA: Well, we're all doing our part, you know, we're all doing our part, like calling that smog hotline when you see this car in front of you that's totally getting all your smog in your face.

But, anyway, so will the Russell City Energy Center result in a net improvement of the Bay Area air quality?

MR. LAYTON: Staff has concluded that, yes.

MS. VIERRA: It will?

MR. LAYTON: It will.

MS. VIERRA: Okay. Thank you.

HEARING OFFICER KRAMER: Thank you.

Connie, is it Livanzo-Jordan? Or -- I apologize if I didn't quite get your name correct.

MS. LIRANZO-JORDAN: Gentlemen, my name is Connie Liranzo-Jordan, L-i-r-a-n-z-o, and my married name is Jordan, J-o-r-d-a-n. My family's home is on the corner of Defoe (phonetic) Road and Industrial. It has been since 1957.

I am concerned about the air quality of the community being in a nonattainment area. I can't quite wrap my mind around how you can justify buying air credits from companies that have been closed for many many years. Can you answer that question? I don't get it.

HEARING OFFICER KRAMER: Staff, do you want to -- or perhaps Mr. --

MR. NISHIMURA: We have a model that we put all the emissions, whether it's banked emissions, and existing emissions into this model. And we try to determine or predict what the air quality is going to be.

And based on that model, so those emissions are basically in that particular model, the banked emissions.

So, basically when we do this model it's showing, even though it's not there, it's in the model basically. And it is showing that the air quality is improving.

MS. LIRANZO-JORDAN: So, it's in the model even though the company's been closed for 20 years?

MR. NISHIMURA: That is correct. Everybody has a misunderstanding about the banked

emissions. What the emissions from a facility is that they're not able to bank the whole amount of emissions that they previously emitted.

What happens is that we have to basically look at the emissions and we RACT adjust it, that's real available control technology, basically. So if the plant was putting out say 100 tons of emissions per year, they may be only allowed only a fraction of those emissions. They're able to bank those emissions, either for future use, or they can sell it to another facility.

And there are, sometimes what they do is that in order for expansion is that they'll go about reducing these emissions even though there's not a regulation that is on the books. Is that they voluntarily do this before either we adopt a regulation, or they want to use it for future use.

MS. LIRANZO-JORDAN: Um-hum. I know you've tried to explain it, but it seems odd to me. Going back so many years, that you're still banking it, you're still including it. I just can't, I cannot understand why.

Basically that's it on air quality. Thank you.

HEARING OFFICER KRAMER: Thank you. Gentleman down there. I would mangle your name so badly that --

MR. DuBOSE: It's me, again. I've got a couple questions for the air quality people.

PRESIDING MEMBER GEESMAN: You need to introduce yourself, again. I don't mean to be rude in that, but it's real important so that we can follow in the transcript who says what.

MR. DuBOSE: Certainly. My name is Dennis DuBose, D-u-B-o-s-e.

Air quality folks, how many people took advantage of the conversion program for the fireplaces as a percentage of the population of where you have done this?

MR. NISHIMURA: No, I do not, don't have numbers. I can't give you any numbers on that.

MR. DuBOSE: So that maybe 5 or 10 percent of the folks are the only ones that go for this conversion program, of the population as a whole?

MR. LAYTON: We agree that sometimes participation is mixed. So, if they do not participate then they will have to supply emission reduction credits to insure that the project is

mitigated.

MR. DuBOSE: Okay. What does it cost to convert a typical fireplace?

MR. NISHIMURA: According to -- I just talked to the person that is going to be running this program. It normally runs, it runs about between $900 to as much as $3000. That's just for the unit, itself. And there are additional costs for insulation.

MR. DuBOSE: So then, what, maybe another $500 for insulation?

MR. NISHIMURA: Your guess is as good as mine.

MR. DuBOSE: Okay, so we don't actually know what a typical installation will cost?

MR. NISHIMURA: Well, normally we have seen costs up to $5000 depending on what type of units they put in.

MR. DuBOSE: Okay. How many people do you think in the City of Hayward can afford that? What are you going to pay?

PRESIDING MEMBER GEESMAN: Let me jump in again, because I think there's another misapprehension here. Mr. Kramer asked the question, is this a voluntary program --

MR. DuBOSE: I understand that it's going to be voluntary. I'm just trying to get to the point of, you know, if this is, you know, like $2500, how many people in the City of Hayward are going to be able to afford a $2500 modification to their house?

PRESIDING MEMBER GEESMAN: I think the requirement is going to be on the applicant. The applicant persuading, presumably with money, a participant in the City of Hayward to put one of these devices in his or her woodstove or fireplace.

MR. DuBOSE: Thank you, sir. How much have you allocated or would you allocate for the City of Hayward for conversion of fireplaces?

MS. SPEAKER: $1.9 million.

MR. ARGENTINE: I just got the answer from the audience, one of the staff people from Calpine. $1.9 million.

MR. DuBOSE: How many people do you figure is going to sign up for this?

MR. ARGENTINE: We're looking it up.

MR. DuBOSE: And what would that convert to, as to individuals? What would each individual or could they expect?

MR. ARGENTINE: $3500.

MR. DuBOSE: Okay, thank you very much. Thank you, Mr. DuBose. You were not the person whose name I was trying to figure out, however.

(Laughter.)

MR. DuBOSE: I'm sorry, I wish to speak on multiple things here. So should I fill out one card and then just keep on --

HEARING OFFICER KRAMER: No, stick your hand up next time.

MR. DuBOSE: I did, if I recall correctly, I think Mr. Geesman --

PRESIDING MEMBER GEESMAN: It all worked fine.

HEARING OFFICER KRAMER: Right.

MR. DuBOSE: I think Mr. Geesman okayed my --

PRESIDING MEMBER GEESMAN: Yeah, it all worked fine.

MR. DuBOSE: Thank you.

HEARING OFFICER KRAMER: Thank you. Mr. or Ms. Avorashed.

MS. AVORASHED: Somehow I had the feeling that it was my name, so I was going to get up anyway.

HEARING OFFICER KRAMER: And it's so different than what I wrote down the last time you spelled it, so --

MS. AVORASHED: I'm Wafaa Avorashed.

HEARING OFFICER KRAMER: Okay, please spell it again for me.

MS. AVORASHED: It's W-a-f-a-a, last name is A-v-o-r-a-s-h-e-d.

HEARING OFFICER KRAMER: Boy, my ears are not working. Thank you.

MS. AVORASHED: Okay, again I am with Healthy San Leandro Collaborative. And I do belong to a group called the Bay Area Air Quality Management.

And one of our missions is really to look at cumulative impact in the areas that are being developed. And we also work, again these coalitions are all throughout the jurisdiction of the Bay Area Air Quality Management, so we do look at impacts that are coming from diesel effects, from the chemical effects, from just environmental, as a whole, that such as what goes on in the save-the-salt-pools that you have out in Hayward.

So when you take into all these effects,

is this plant going to improve our air quality, and quality of life for the community that lives in that area? If it's built, is it going to improve the air quality first?

I'm not sure, when you pollute, you pollute. There's enough pollution inventory in the west side of Hayward already existing today. Have you counted all that pollution? When somebody tells me they're going to give credit to a company that didn't exist for so long, just so you can add some more pollution, I think something's wrong with that system.

And when you equate the building of or utilizing this program that they talk about, the fireplace, I'm sorry, where do you equate a power plant emissions with the emissions that are coming out of the fireplaces?

We can always justify things. And this is what's the problem with the level of government that have jurisdiction over land use and over giving permits to operate. How do we constantly justify these polluters coming in and creating environmental racism.

You need to look at a study that just got completed by Santa Cruz University called,

Still Toxic After All These Years. They take the whole Bay Area, including the Central Valley, as to how this pollution and the wind around the Bay Area comes from one section, flows into the Central Valley.

Whatever we do here goes into another community. You need to look at that report. It just got released recently, and it was all over the newspapers and the television.

The other study that you need to take into consideration that tells you about PM is, Paying With Our Health. And that was done by a coalition called Ditching Dirty Diesel Collaborative.

You need to look at these studies before you continue putting businesses like a power plant in your backyard, or in your frontyard, for that matter, here.

So we need to be mindful when we are bringing these so-called businesses that are going to clean our air. How much of it are they really going to clean when they're buying credits?

Thank you.

HEARING OFFICER KRAMER: Thank you. Sir, did you wish to speak?

MR. STRAUSS: good evening. My name is Robert Strauss. That's S-t-r-a-u-s-s. I'm a resident of Castro Valley and the Vice Chairman of the Eden Area Foundation, which is located in unincorporated Hayward.

I've got two comments on the mitigation program that's proposed. One is that there is a large number of fireplaces in the Hayward area that are not utilized currently. And has the study been adequate controlled to account for people using the program to install natural-gas-fired fireplaces that will increase particulate matter, because they have an unused wood fireplace and by putting in a natural-gas which will then be used causing an increase in pollutants rather than a reduction?

And I would trust the CEC Staff to be able to do that analysis. But I wanted to know whether that had been accounted for in the planning of this mitigation program.

Second, assuming that the program is valid, and valid reduction, I would propose or recommend that the initial rollout of the program include San Lorenzo and the unincorporated parts of Hayward, unincorporated parts of Alameda County

west of 580 in the initial rollout of the program.

And that the program in the full rollout after a year be limited to the area west of the Oakland Hills.

Thank you.

HEARING OFFICER KRAMER: Thank you. Mr. Layton or -- go ahead, did you want to respond to that?

MR. LAYTON: We acknowledge that certain fireplaces that are unused may get modified. But, again, I think the power plant's going to be here for 30 years, so if the fireplace gets replaced with a cleaner burning unit, that will also be 30 years of protection. The new homeowner may want to actually have fires that the previous homeowner may not have used.

So we acknowledge that some fireplaces that are unused may get replaced. But I think it's also if they don't currently use a fireplace, spending $2500 may not be their top choice.

So, I think it's -- we've considered it; we don't consider it to be a significant issue in the total tons.

HEARING OFFICER KRAMER: Thank you. Ma'am.

MS. McDONALD: Hi. My name is Juanita, J-u-a-n-i-t-a, McDonald, M-c-D-o-n-a-l-d. And I live on Callaroga (phonetic) Avenue in Hayward. I am going to make a comment, not ask any questions.

I am the senior citizen that the gentleman was talking about back there. And, yes, I am an asthmatic. I was not an asthmatic when I moved to Hayward. But between 880 and highway 92 and the emissions I became one.

I raised three sons in Hayward, all asthmatics. All lived on Callaroga between 92 and 880. And I have seen many many hospital visits, emergency rooms because of my sons.

Now, we were talking about fireplaces. I'm not worried about fireplaces. I do have a wood-burning fireplace. I used it -- see, I've lived there 50 years -- I have used it twice. It made my family so sick we no longer use the fireplace. And we know we can't.

And, yes, I am a senior citizen and as of next week I'm going to the doctor's because I have lost both my sense of smelling, I can no longer smell anything; and I have lost my sense of taste.

So, if this group, power plant, puts out emissions I'm not going to know the difference until I'm dead. Thank you.

HEARING OFFICER KRAMER: Thank you.

Mr. Armas.

MR. ARMAS: Jesus Armas, J-e-s-u-s A-r-m-a-s. First, let me welcome the Commissioners for once again holding this hearing in Hayward, making it more convenient for the residents to testify. And thank you, Mr. Kramer, for your conduct of this meeting this evening.

Just on the question of the air reduction credits, as indicated in the conditions of certification, the program that you discussed with respect to the fireplace replacement effort is to be submitted at least 90 days prior to start of construction.

And as Commissioner Geesman raised, there is a 12-month opportunity for Hayward to have first crack at it. We happen to think that we should have a longer period of time, given the placement of the plant. And you can appreciate the reason for that remark.

There may be a way of achieving both that objective and not compromising the

opportunity for others to potentially participate if Hayward residents do not. And that is assuming, for the moment, and for discussion, that the Commission certifies the proposed amendment. Why not have the marketing effort commence shortly after the certification?

We understand that the construction is somewhere in the summer of 2008 time period, but there's nothing that precludes, again assuming certification is granted, commencement of the marketing very early post that decision.

So we would suggest that consideration be given to that.

Additionally, we did indicate at the workshop that the City is amenable to lending assistance in marketing this in our community. We have a method of distributing notices to our residents through our water bills. We have substantial customers of our water system, and that's simply another tool, another method to get the word out. And the City would be amenable to lending assistance in that regard.

But I think fundamentally if we can get the word out much sooner it would serve all of the objectives contemplated in this condition.

HEARING OFFICER KRAMER: Thank you. Any other public comments on air quality? Sir.

MR. WILSON: Good evening. My name is Andrew Wilson. I'm a resident of Hayward. I don't need an answer, but I wish the Commissioners to take into consideration the actual plume, itself.

So, it's my understanding the plume is pretty much in Hayward. So to take the fireplace retrofit outside of Hayward is counter-productive.

Also, there's an air mass volume that kind of stops the plume from going over the hill. The particulate seems to fall kind of in the Hayward Hills.

So if you have the other options what does this really do for Hayward? So, on the option of the fireplace, I don't think, from what I've heard, that the power plant's going to pay for the entire cost, which puts an additional burden on each individual resident that may want to participate but doesn't have the extra funds to participate.

If you move the program over to someplace like Pleasanton, the incomes are higher, easier to pay, they can pay their end.

So I don't need an answer now, but on this fireplace retrofit program I would hope that it's fully paid. If it's not, and it moves out of Hayward, then the residents of Hayward take the burden of the added particulate matter.

Thank you.

HEARING OFFICER KRAMER: Thank you. Any other public comments on air quality? Ma'am.

MS. GARDINER: Good evening. My name is Joanne Gardiner, J-o-a-n-n-e G-a-r-d-i-n-e-r. I'm a 40-plus-year resident of Hayward. I'm a real estate broker. And I am a very concerned citizen about what's taking place here.

I did receive the Russell City amendment staff assessment part 1 and 2. And I have read through it in its entirety and stayed awake --

(Laughter.)

MS. GARDINER: -- and found it to be quite interesting. And one of the most interesting things I found in this report is near the beginning where the staff says, gee, Russell City developers really ought to have this Westinghouse Benson easy-start, low-emissions system. I think you guys know what I'm talking about, right? Okay.

The developer, according to this report, said to your staff, oh, that's going to cost us money. We don't want to spend more money. And then our staff says, in this same report, oh, okay, well, how about a fireplace retrofit program.

Now, tell me something. Whose side is the California Energy Commission and their staff on? The people who you're supposed to be serving, or the developers who are in it for profit and contamination?

Russell City has advocated being a good neighbor. If they want to be a good neighbor to the citizens of Hayward and to the Bay Area, then they should have said, okay, we'll do this rapid-start Westinghouse or the one by GE. They wouldn't have fought it. They have no intention of being a good neighbor. They've proven that by the position they took in this report that you've all read.

So I'd like you to pay closer attention to that because according to your own staff, if they were to go with either the Westinghouse or the Siemens fast-start doo-hickeys, they wouldn't be having this overt amount of emissions. It

would come way way down. Your staff has talked in here about how successful it has worked in other power plants.

So it seems to me, just as a citizen that this company wants to come here; they want to dictate to you and your staff on what basis; and then they want to say, oh, and we're going to give you, we're going to let the people of Hayward be the first to offer to participate to block up their fireplaces so we can just put more and more emissions in the air for these people to breathe.

Gentlemen, does that make any sense to you? Would you want to be a resident of this community? Would you want to be standing here where I am and pleading to you to please be reasonable. This power plant has no business in Hayward. Nor does the Eastshore. For a multitude of reasons.

And this report talks about how our air quality has become so much worse since '89. You read it, I read it. It's going to be on my website so everybody can download it that wants to read it. And I'll be happy to give them a cheat-sheet so that they know where to look. So far we've had 1600 people come to that one page on my

website.

I intend to inform as many people as I can about this because this is not right. And instead of even considering a fireplace retrofit program, or anything like it, you ought to be looking at this report and saying, wait a second. This developer, they don't even want to do the right thing. They don't even want to do the right thing.

And based on that, I don't see why you'd even want them to be contaminating the air that's going to eventually get out to the communities where you live. Maybe not as intensely as here.

I thank you for your time, and I beg you to please reconsider your own report in detail. Thank you.

HEARING OFFICER KRAMER: Thank you. Staff, do you wish to respond?

MR. NISHIMURA: We learned about the Benson process about three months ago. And we tried to verify if this was really, that they could do some low-emissions startup. And we couldn't verify it.

We tried to contact a facility in England, and we tried to contact several

facilities in Germany. And we weren't successful in getting the information. So we couldn't verify those emissions, if they were truly could be done.

HEARING OFFICER KRAMER: Well, if they were able to convince you that that equipment would work, and if they chose to use it, would that reduce the amount of offsets they had to obtain?

MR. NISHIMURA: That is correct.

MR. LAYTON: Or it would allow them to operate more hours. They are taking a limit on operation that's purely driven by the total tons of offsets that they're providing.

If they choose to consume the offsets by operating poorly, or having frequent startups, having startups that are of extended duration and consume those, they can operate fewer hours and make money. It's their choice.

We think that the technologies, the rapid start from General Electric, or the rapid response from Siemens are technologies that are going to be seen often in California.

The developer, obviously, is promoting them. We have not seen one in California, therefore we can't attest that they will work as

designed.

But the idea behind trying to make a combined cycle that can cycle more rapidly, I think is very appropriate for the California electricity market.

But in this case we worked with the applicant and required less emissions for NOx during startups which we believe will curtail both the duration of startups and also the frequency of startups.

So we think that we have reduced the emissions on a daily basis to bring the annual -- or the daily total more in line with the mitigation that's being offered.

HEARING OFFICER KRAMER: Thank you. Any other public -- sir. And then I think we need to wrap this section up pretty soon, so let's make you the last public comment on air quality.

MR. TOTH: Hi. My name is Mike Toth, T-o-t-h. I just have a question. There was a study published in 2002 in the Journal of the American Medical Association by Pope, et al, entitled something like Fine Particulate Matter and Lung Cancer.

And this is a study that is a followup

on an earlier study. I believe it's about a 15-year period, studying a very large population.

The study concluded that there's a definite correlation with the nonspecific PM2.5 and lung cancer.

I was wondering if the Commission and staff currently have -- whether they're knowledgeable about this study; whether it's been incorporated into the health impact analysis of PM2.5? And if not, this study is already six years old. How long does it normally take research to be incorporated into the health analysis process?

I mean I realize this might be recent in terms of the legislative standard of time. But I was just wondering what the attitude of the Commission is with respect to this particular study.

HEARING OFFICER KRAMER: Okay, your question actually fits better with the next topic, so -- and I see that that witness was intently listening and probably will --

MR. RATLIFF: But even so, Mr. Kramer, --

HEARING OFFICER KRAMER: -- rush up here

to answer it.

MR. RATLIFF: -- I would still try to give him some answer. Yes, staff is aware of the studies. And even perhaps more importantly, those studies influenced the California Air Resources Board in setting the new PM2.5 standards, which are reflective of the very concern that was expressed in the Pope paper.

HEARING OFFICER KRAMER: Dr. Greenberg, let's just wait for a moment until you make your presentation, and then you can --

DR. GREENBERG: I'm always happy to wait, Mr. Kramer.

(Laughter.)

HEARING OFFICER KRAMER: That can be your opening remark.

So, closing the public comment on air quality. I believe we have no -- we have one exhibit to move, from Mr. Haavik, is that correct?

MR. HAAVIK: Yes.

HEARING OFFICER KRAMER: Okay, are you intending to move that into evidence?

MR. HAAVIK: Yes, I would, thank you, please.

HEARING OFFICER KRAMER: Any objections

from either other party? Seeing none, exhibit -- that was 200, correct -- is received into evidence.

MR. HAAVIK: 201, 202.

HEARING OFFICER KRAMER: No, those were the duplicates --

MR. HAAVIK: Yeah, duplicates.

HEARING OFFICER KRAMER: Okay. So, staff's 100 is already in evidence, so --

MR. HAAVIK: So we're good.

HEARING OFFICER KRAMER: -- you don't need those. Okay, so exhibit 200 is received into evidence.

Do the parties have any additional comments to make before we close the air quality record?

MR. HAAVIK: None.

HEARING OFFICER KRAMER: Thank you. Now we will move on to the topic of public health. And because Dr. Greenberg will be presenting at least the staff's testimony with regard to both public health and hazardous materials -- am I correct?

DR. GREENBERG: Correct.

HEARING OFFICER KRAMER: Okay. Well, I

suggest that we combine the two. That'll make it easier, I think, for the parties, and also for the public making their comments. I notice at least a couple people appear to have comments on both topics.

So, Dr. Greenberg, if you would, please, summarize your testimony for the benefit of the public on both public health and hazardous materials.

DIRECT TESTIMONY

DR. GREENBERG: Hearing Officer Kramer, Commissioners Geesman and Byron, members of the public, I'm Alvin Greenberg. I am the author of the public health section, as well as the hazardous materials management sections of the staff assessment.

In regards to the public health section, I not only authored the assessment for the amendment, but I also authored the original public health assessment back in 2002.

The public health assessment is conducted looking at all sources of toxic air contaminant emissions from the proposed Russell City Energy Center. My findings are consistent with that of the applicant, although I did find a

slightly higher risk than the applicant that can be explained by slightly different methodology.

Nevertheless, the risk that I found to the maximally exposed individual at a hypothetical point of maximum impact was approximately four in one million, a cancer risk of four in one million, significantly less than the California Energy Commission's threshold of significance, which is ten in one million. That's also the Bay Area Air Quality Management District's threshold of significance, as this facility is using what we call toxics best available control technology.

Moving on to hazardous materials, I also authored both the original 2002 staff assessment, as well as the present staff assessment for the amendment.

Hazardous materials will be used at this power plant. That's certainly not a surprise. Indeed, they are required to use certain hazardous materials, one of which, aqueous ammonia, is used to control oxides of nitrogen in SCE, selective catalytic reduction, which they are required to use under air quality regulations.

I have determined that they will store, use and transport hazardous materials to the

facility; and use them at the facility in a manner that does not produce a significant risk to the public.

Hearing Officer Kramer, if you'd like, I would like to, with your permission, answer the question from the member of the public, Mr. Toth, before we get into other questions?

HEARING OFFICER KRAMER: Please go ahead.

DR. GREENBERG: Mr. Toth had asked that question at a staff assessment workshop for the Eastshore Energy Center siting case. And I have thoroughly researched his answer -- I mean his question, and have provided an answer in the preliminary staff assessment for the Eastshore project, which has not yet been released to the public.

But I want to assure Mr. Toth and members of the community that we do, indeed, consider the carcinogenicity or potential carcinogenicity of particulate matter.

I'm aware of the article that he cited from 2002. There are also three other articles that I have and referenced, and that I've read as recently as 2006, that describe epidemiologic

investigations into the causal relationship between PM10, PM2.5 and cancer incidence in the general population.

Now, these are epidemiologic investigations that show a relationship. They don't show what particular part of the PM2.5 or the source of the PM2.5 that could be the cause of an increased risk of cancer.

It can be diesel particulate matter, which is regulated by the State of California as a substance known to be carcinogenic. And it can also be particulate matter that has adsorbed to the surface contaminants, polynucleararomatic hydrocarbons, for example, or metals that are also carcinogenic.

And when I conduct a human health risk assessment I am looking at the emissions of these very same compounds, the PAHs, polynuclear-aromatic hydrocarbons, and carcinogenic metals, that may be either in the gaseous phase or may be adsorbed to the particulate matter.

So, in a manner I am assessing all the carcinogenic substances that are emitted from a power plant regardless of whether they are in a gaseous phase or adsorbed to particulate matter.

And the health risk assessment then quantifies that as an estimate, an upper bound estimate, of what the potential cancer risk could be. That's the long answer.

The short answer is we assess the potential carcinogenicity of particulate matter emitted from a power plant.

HEARING OFFICER KRAMER: Commissioner Geesman, do you have a question?

EXAMINATION

PRESIDING MEMBER GEESMAN: Do you do that for both PM10 and PM2.5?

DR. GREENBERG: Commissioner Geesman, I do not separate out whether the carcinogenic substance is adsorbed to the surface of PM2.5 or PM10, but rather the substance, itself, regardless of whether it is on a particulate.

I think my point is that the reason these epidemiologic studies are showing a relationship between PM2.5, PM10 and cancer incidence is because of the carcinogenic substances that are adsorbed to the surface of the particulate matter. And that's primarily from combustion sources.

PRESIDING MEMBER GEESMAN: Would your

analysis pick up carcinogenic materials associated with ultrafine particulates?

DR. GREENBERG: Yes, if the analytical method is able to analyze everything. We base our risk assessments on what we estimate will be emitted from the stacks. And these estimates come from actual measurements.

And sometimes the measurements include the gaseous phase, as well as the particulate phase. And that data is reviewed, evaluated; and we only use it after the California Air Resources Board has conducted that review and evaluation.

I cannot say with 100 percent certainty that even ultrafine, less than a micron in diameter, would be picked up by the analytical method.

PRESIDING MEMBER GEESMAN: The research is only just starting in the ultrafine, is that correct?

DR. GREENBERG: That is correct.

PRESIDING MEMBER GEESMAN: Thank you.

HEARING OFFICER KRAMER: Does that complete your summary, then?

DR. GREENBERG: Yes, it does.

HEARING OFFICER KRAMER: Do any of the

parties have questions for this witness?

MR. WHEATLAND: No.

MR. HAAVIK: I do.

HEARING OFFICER KRAMER: Go ahead, Mr. Haavik.

CROSS-EXAMINATION

BY MR. HAAVIK:

Q In regards to the hazardous materials Haz-2, --

A I thought you were going to do public health first.

Q Do you want me to do public health first?

A Please. I'm on that subject now.

Q Public health. Cumulative impacts, mitigation and conclusion in your report, Dr. Greenberg. The proposed RCEC site will be located approximately one-half mile from the proposed Eastshore Energy Center. There has been a similar assessment of cumulative nature of close-by plants in San Francisco, but not with the RCEC and the EEC sites.

Could you explain, please, the San Francisco assessment and what appropriate application you might use in regards to the RCEC

and the Eastshore sites?

DR. GREENBERG: Certainly, Mr. Haavik. But let me first correct your statement. Unbeknownst to you I have conducted a cumulative, quantitative cumulative health risk assessment that addresses emissions from both the Russell City Energy Center and the Eastshore, the proposed Eastshore project.

That, however, was included in the preliminary staff assessment for the Eastshore, which is why you didn't find it in the Russell City Energy Center.

However, I can tell you that my findings were that Russell City Energy Center, alone, resulted in a risk of, theoretical upper-bound cancer risk at the point of maximum impact of 4.1 in a million. Eastshore, alone, was 3.7 in a million. And the cumulative result was 3.9 in a million.

Now, it's just happenstance that that happens to be halfway between them both. What is shows is that the Eastshore emissions do not impact on the risk of the Russell City Energy Center, as you might expect, because the prevailing winds are mostly the other way.

But that Russell City has a slight impact cumulatively on the Eastshore facility. However, the impact and the cumulative nature are still well below the level of significance of ten in a million.

So, with that explanation, and of course you'll see this all in living black and white when the preliminary staff assessment is released for the Eastshore facility.

If you'd like me to answer the rest of your question I'd be happy to, but I'm hoping this obviates the need for that.

Q That wouldn't be necessary as long as I know that that's going to be forthcoming, that would be fine. Thank you.

Hazardous materials, let's go to haz-2. And I may be not describing this properly, but please bear with me.

The condition for haz-2 indicates that the owner will provide a risk management plan and a hazardous materials business plan. What would be the appropriateness of a hazardous materials response team near the facility or facilities, if we're also talking about the proposed Eastshore site, in regards to enormous traffic, enormous

issues, trying to get across town from where the hazmat team is currently located, which is in Castro Valley, taking into account that there are going to be three or four major projects, two of which are major highway projects, getting from that location to Depot Road where both power plants possibly could be sited?

A Well, Mr. Haavik, as you know you asked this same question at a staff workshop for the Eastshore facility. And once again, my response is in the preliminary staff assessment for the Eastshore facility.

But I certainly can share with you this evening that I have thoroughly researched that particular question that you've raised, and I have spoken with representatives of the Hayward Fire Department, including their hazardous materials coordinator and the Fire Marshal.

And as a result of those discussions, let me tell you that it is certainly my opinion that the Hayward Fire Department and the Alameda County Hazardous Incidence Team are thoroughly capable of finding their way through traffic in responding in an appropriate time.

I'm sure you are aware that fire

departments have a system whereby when they come across a red light in their direction in an intersection they can change the light to green for them and red for the cross-traffic. The one that the City of Hayward Fire Department uses is called the Opticon system.

Right now Alameda County Hazmat doesn't -- their system is not in -- there's not a confluence, it's not a coordinated electronic system. And Hayward Fire Department personnel have indicated to me that there is a potential here to meld the systems and get them to work jointly together to enhance the ability for Alameda County, as well as Hayward Fire Department personnel, to respond.

But I also want to point out that there is a fire station on Winton Avenue; I think that's station number 6, of the Hayward Fire Department that will have the responsibility of first response in the event of a hazmat spill. They are located west of 880 and north of state route 92.

Nevertheless, you raised a very good point. What happens if they're out on a call and something else comes in and another station has to respond.

So to summarize, my response to you is that the fire departments in Alameda County hazardous incident team know how to wind their way through traffic and negotiate traffic. And if freeways are clogged or they're under construction, they have an Opticon system. It needs to be updated and improved. And it needs to be extended so to allow Alameda County HIP team to use it, as well.

Q I believe that possibly the response team in Castro Valley is possibly equipped a little differently than the City of Hayward equipment that station 6 or any of the stations. Would it be appropriate to have available hazmat equipment, if it's not already in place, and I do not know, during the period of construction, as well as operation? And have it located at station 6? Is there special equipment for that? I'm sorry.

A At this time it's my opinion, and I have not received any information from the Hayward Fire Department to contradict my opinion, that that is not necessary. That station 6 and the other stations are adequately equipped for first response. And that Alameda County will be able to

respond in an appropriate time.

Q Thank you very much.

A You're welcome.

HEARING OFFICER KRAMER: Does that conclude both topics in your summary there?

DR. GREENBERG: Yes.

HEARING OFFICER KRAMER: Thank you.

DR. GREENBERG: Yes, Hearing Officer Kramer.

HEARING OFFICER KRAMER: Okay, now is the time then for public comments on the two topics of public health and hazardous materials. And I have a card from Connie Liranzo-Jordan who wanted to speak on public health. So, please come forward -- or if you -- okay, for the record she just wants to reiterate her earlier comments.

Jim McCarthy wanted to speak about hazmat. Is he here? Please come forward. Sorry, maybe not Jim, J.V.

MR. McCARTHY: Regarding hazardous materials, --

HEARING OFFICER KRAMER: First your name, please, for the record.

MR. McCARTHY: Right. On the name, it's two initials there, J as in John, V as in Vincent,

last name M-c-C-a-r-t-h-y. I've been residing in Hayward for over 20 years. I've been in the area for the last 25. I retired from the Army Reserves about a couple years ago, and I've been following the hazmat side of this for awhile.

I've asked questions relating to natural gas and ammonia, specifically. And relating to other things in the area that may be a factor such as I have asked before about cumulative impact where most of the serious rail traffic, at least where tankcars are concerned, in this part of the state seem to be concentrated in the East Bay. Mainly between Fremont and Richmond or farther north/south. And then from there to Pittsburg east/west.

Now, with an accumulation of tankcars that are really serious if anything gets out of hand with those, scattered anywhere through this county or west side of Contra Costa at any given time, I've asked about cumulative impact, given the accumulation of ammonia deliveries that would be expected, particularly if we're looking both at Russell City and Eastshore.

And I've noticed, if you look at the graphic that was presented outside with the

statewide distribution of Calpine facilities, it seems like the only plant that's located in that north/south, east/west stretch for the tankcar proximity is a much smaller site involving 64 megawatts at Pittsburg.

Well, that's the far end of this - the far northeast end of this tankcar concentration. And the Eastshore proposal, by itself, as I understand, is more than double the scale of the Pittsburg facility. Not to mention we're looking at Russell City, that's like more than four times the level.

And so I'm still not seeing much addressed to cumulative impact with regards to ammonia deliveries. Particularly when we have all this tankcar accumulation throughout the County and Contra Costa County.

And while I'm on the subject, since there seem to be some wild enthusiasm expressed from parties in the San Leandro, some of which were connected with the council, I'd like to go on record here asking the city council of San Leandro if they have any position regarding what site in San Leandro they would like these facilities located at in lieu of Hayward. I'd like that to

be a matter of record for San Leandro.

So, once again, regarding the issue of ammonia deliveries and natural gas potential hazard, my main concern here is the connection between industrial safety onsite and potential impacts offsite. And moreso with Eastshore in particular.

That's all I have to say.

HEARING OFFICER KRAMER: Dr. Greenberg, do you want to respond?

DR. GREENBERG: Hearing Officer Kramer, I'd be happy to. There is no doubt about it that industrial environments, in general, that use hazardous materials have to be very careful about how they use and store and transport those hazardous materials.

We have a number of conditions of certification for Russell City Energy Center, as well as what we propose for other facilities, including the Eastshore, the proposed Eastshore facility.

I have looked at the cumulative impacts. But when you have a insignificant risk of aqueous ammonia transportation for one facility, and an insignificant risk that I've determined for

another facility, even when you add those together they're not rising to the level of significance.

Now, I used data from the U.S. Department of Transportation. I used data from Caltrans. I used data from -- that reported in the scientific literature on actual hazardous material tanker/truck accidents, given the nature of the road. I mean they really have this down specifically to whether it's on a four-lane highway, divided highway, interstate, or whether it's two lanes divided or just two lanes passing each other.

And given all those statistics, and the actual track record of transportation of ammonia by a tanker truck to a facility licensed by the California Energy Commission, I'm very confident in stating that the risks are below a level of significance, even cumulatively.

HEARING OFFICER KRAMER: Thank you. Mr. DuBose.

MR. DuBOSE: No comment, believe it or not.

HEARING OFFICER KRAMER: Charlie Cameron. I'm not sure if you wanted to speak about this topic, either of these topics.

MR. CAMERON: No, traffic and transportation.

HEARING OFFICER KRAMER: Okay. I think that's all of my blue cards. Did anybody else want to speak? The lady on the aisle first. Right, yes, you.

MS. GROSS: Hi. I'm Joanne Gross, again. I just wanted to make a quick comment. And I don't know if this should have been in the geology section or the hazardous materials section.

But the plants are both going to be located three miles away from the Hayward earthquake fault and 14 miles away from the San Andreas fault.

And as we all know, last week in Japan there was a 6.8 earthquake that resulted in a nuclear plant being shut down and some damage from that. And some hazardous materials leaking from that.

And while this is a natural gas plant, I just kept thinking about the ammonia and, you know, potential for explosions from the natural gas that's going to be used.

So I think it should be considered. And

I'm sure there are lots of plans for dealing with that, but when you're dealing with a natural disaster there's just so many factors you can't predict.

Thank you.

DR. GREENBERG: It's Ms. Ross?

MS. GROSS: Gross.

DR. GREENBERG: Gross. No, those are excellent concerns. And, yes, you're correct, we do look at that. This is what we call seismic zone 4, that's the highest level of seismicity that needs to be planned for.

And I'm very interested in that Japanese earthquake the other day. I'll be looking at the results of inspections on hazardous materials tanks. I don't know how they build their nuclear power plants over there. Obviously not very well.

However, I can reassure you that during the Loma Prieta quake, during the Northridge quake and during the more recent Nisqually quake up in the State of Washington near Olympia, that there were no hazardous materials or natural gasline leaks with the exception of the home gaslines there in the City of San Francisco. That's different from an industrial gasline. And the

lack of shutoff valves there.

And there was another home, or what we call a service line up in Nisqually that leaked. Didn't result in a fire like it did during the Loma Prieta quake.

But what we have found is that hazardous materials storage tanks and pipelines built to modern standards, as opposed to old ones, are not failing during these seismic events. That's reassuring. But I want to also reassure you that I'm looking into what happened there in Japan.

MS. GROSS: Okay. Well, let me just say that regarding the Loma Prieta quake in '89, my husband had an auto repair shop on Connecticut Road, which is very close, lets right off of Depot Road.

And in the Loma Prieta quake it really shook down there. It shook a lot harder than it did up where we live up on the hill.

So, anyway.

DR. GREENBERG: And that's another reason why there's secondary containment around these large liquid hazardous material storage tanks. Not only built to certain very specific standards, so that they're high integrity steel

tanks, but there's secondary containment around there, as well.

And we just have not seen failures of even the primary tank, let alone both the primary and the secondary tank.

MS. GROSS: Thank you.

DR. GREENBERG: Thank you.

HEARING OFFICER KRAMER: Thank you. Gentleman on the aisle. And then the lady up front. Him first.

MS. LePELL: How do you do? My name's Audrey LePell. I wanted to address, and I didn't write down the card and I apologize about that, about the hazardous materials, Dr. Greenberg.

You should probably know that my -- I'm going to be addressing you about transportation projects because of my position within the City of Hayward. I specialize in transportation problems and solutions.

So, about the hazardous materials, I believe I heard you say that the hazardous materials is handled by the Alameda County Fire Department?, is that correct?

DR. GREENBERG: There is first response to a hazardous materials incident, a release or a

spill, will be by the Hayward Fire Department. They would get to the scene first. They would evaluate; they would offer control; keep people away, and make an evaluation.

And then if there needs to be some additional response that would be either by a private vendor hired by the applicant, in this case the project owner; or the Alameda County Hazardous Incident Team.

MS. LePELL: With all due respect, is there a letter in the documents, which I haven't read until I got them this afternoon, and looking through them -- is there a letter from the Alameda County Fire Department stating that they would be doing that?

DR. GREENBERG: No.

MS. LePELL: Is my understanding from where -- I've lived around Hayward the past 42 years, that fire station number which in Alameda, Castro Valley, the Alameda County unincorporated area?

DR. GREENBERG: I forget the number.

MS. LePELL: That should be stated, I believe, for the record. When you want to drive from Castro Valley through Hayward you have route

580, freeway; and almost 24 hours, I won't say completely, but maybe from 4:00 to 5:00 in the morning down to 800, a fire truck would have major problems getting through that particular freeway area.

Hayward is going to have, as you probably are aware, several major transportation exits, entrances, major intersections building, 880, 580, 238, highway 92. So there will be a lot of transportation projects literally being built in Hayward as this project is being considered. And they've already begun. Also Lewelling Boulevard, from Mission Boulevard down to 880 and beyond.

So, I somehow had the impression that the Bay Area was out of compliance in its emissions. I believe that there's a problem with the Bay Area Quality Control District. Is that not true? Aren't we still out of compliance?

DR. GREENBERG: I believe that's an air quality issue, not a hazardous materials issue.

MS. LePELL: Well, I understand that, but --

DR. GREENBERG: So I don't understand your question, ma'am, I'm sorry.

MS. LePELL: Okay, then I'll just -- well, never mind. I will ask it under transportation then.

In The Chronicle this morning I will call your attention to a very interesting article which I have not digested completely, but it's titles, 70-Year Mercury Clean-Up Plan Okayed for the San Francisco Bay.

And as all of us know, mercury is a cancer-causing element. So I wonder, with all due respect, Dr. Greenberg, about your analysis, considering what will be happening in San Francisco Bay. So I just wanted to bring that to your attention that there might be a conflict about interpretations of mercury within our area, and particularly with the San Francisco Bay.

And I believe when I was reading the other larger document the mercury is part of the contaminants that will be going into the air as part of the emission from the power plants.

DR. GREENBERG: No. Not from this power plant.

MS. LePELL: I beg your pardon?

DR. GREENBERG: I said no, there are no mercury emissions from this power plant.

MS. LePELL: May I just inquire just one more question. I thought that I read that there was a combination of chemicals that are put together with the air that are part of the plume.

DR. GREENBERG: That is correct, but it is made up of certain chemicals, not all chemicals. Mercury isn't one of them. A natural gas fired power plant is not a significant source of mercury at all.

MS. LePELL: Okay, well, I accept your expertise, but I thought those were contaminants, particulates, into the air.

DR. GREENBERG: Yes, they are particulates. But not mercury.

MS. LePELL: But what about contaminants? Elements that are considered in that type of thing.

DR. GREENBERG: Perhaps when I said the word toxic air contaminants, that's a regulatory term from the State of California. And it lists a chemical has to be determined to be a toxic air contaminant. And then, of course, it has to be emitted from a particular source.

And so there is a list which you can find in the AFC or the original application for

certification of 2002, as well as in the amendment, as well as in the staff assessment, of which toxic air contaminants are emitted from this power plant.

So I guess I'll cut to the chase and say I certainly appreciate the Regional Water Board wanting to clean up mercury in San Francisco Bay, and I applaud them for that. That has nothing to do with this power plant, however. And certainly the applicant can talk to that, as well.

MS. LePELL: Well, if it's all right with the Chairperson, I will read the last paragraph maybe at the end of the meeting. And I think there's a little difference of opinion here.

Thank you.

HEARING OFFICER KRAMER: The gentleman.

MR. MORENO: Jason Moreno, 1543 Highland Boulevard here in Hayward.

It is not easy, it is not popular to speak out, point out the deficiencies in any public safety organization, police or fire department.

I became a political activist here in Hayward in 1997. And one of the organizations upon which I have focused, for a variety of

reasons, is the Hayward Fire Department.

And I have to tell you, because you do not know, the gentleman here testifying does not know, and probably 99 percent of the people in this room do not know that there are some real questions as far as the efficiency of this fire department is concerned.

As an example, I have personally had to write the Chief of the Fire Department, who is here tonight, exposing to him the same violation, fire violation, at Home Depot on this very boulevard.

Over the past four or five years I have written him repeatedly about the firefighters practice of using city vehicles for personal use. They will even leave the City of Hayward with a fire truck at a whim. And if you doubt that statement I will offer you photographic evidence upon request.

So what I'm saying is this. They are not as efficient, you shouldn't believe automatically that they're going to take care of something as you would want the public to believe.

And that's all I want to say about that. Thank you.

HEARING OFFICER KRAMER: Thank you. Any other public comments on public health or hazardous materials?

MS. AVORASHED: Again, my name is Wafaa Avorashed. I just want to make sure that you put into the record that there is new studies out that really talks about public health issues pertaining to polluters and violators. Constantly we have data that the hospitals are now picking up and telling you what asthma is doing to our children and our families and the quality of life.

Not only that, but also our budgets, our city budgets, our county budgets, how much of that is actually absorbed by the health of the families that are impacted by not only asthma, but all types of respiratory issues.

Again, the study, Paying With Our Health, that Pacific Institute did, will give you even finer points as to how much of our tax dollars are going just to work with the children that are impacted by polluters such as this one that is proposed right now.

Now matter how the gentleman can spin the validation that this is insignificant, I'm sorry, I'm an infant in this department; I do not

know much, how to explain it to you technically, as he did.

But as a person from a community that cares about the value of the quality of life, spinning it the way he's spinning it right now is not right. You need to look at some of this data that he referred to. It is outdated. And you need to look at what's going on now in the studies that we have been able to bring about.

I would suggest to you that you look at it, as well, because the impact of the quality of life in the Bay Area right now, is significant. No matter how much we talk about how significant 4 per million, 5 per million, one life, one life is significant, while we continue to lose our children for these so-called models is not the way that we are really taking care of the community.

And we are not mindful here. We need to go back and look at these outdated models that have not looked at the studies and the costs of the health that we are paying from our tax dollars.

I would say to you, you need to look at the hazardous material areas. One question I have is when the scenario of, let's say, what happened

to Japan, and please do not underestimate what the Japanese can do and how they build. Never put down a company that has done a lot better than we have in this country. So I would say you need to study that.

But the worst case scenario, have we studied that? And how much of that worst case scenario is exposing other cities beside Hayward? And where are they exposing it? Did you look at worst case scenarios if an accident such as Japan's accident happened, since we also have earthquakes in this area? I'd like an answer on that. I want to know what the worst case scenario, and how are you going to work with the hazmat team on that one. Thank you.

HEARING OFFICER KRAMER: Dr. Greenberg.

DR. GREENBERG: Hearing Officer Kramer, in regards to the hazardous materials I do assess the worst case. I don't assess the probability that there would be a catastrophic loss, the entire contents of the aqueous ammonia storage tank. I assume that that has happened, and then look at the secondary containment, engineering controls, which are more important than any other type of control, as to whether or not that will

prevent an offsite impact. That is, an impact to the public.

So, in a manner I do agree with her that we should assess what the worst case would be, even though the probability of that is very low. And that is, indeed, what I did.

I think also that it's important to point out that I am defending my assessment of the project, and not the project, itself. I leave that to the project owner to defend their project. But it is my job to assess it with the best available scientific knowledge and to my professional degree of competence. And fairly state what the risks and the hazards may or may not be for this particular project.

HEARING OFFICER KRAMER: What is the worst case aspect of your health risk assessment?

DR. GREENBERG: The worst case aspect is using exposure criteria that tend to over-estimate what the risks will be. In other words, when I mentioned earlier that is a theoretical upper bound cancer risk estimate.

I can tell you with absolute certainty that there is not an individual who will be exposed at the cancer risk, the maximum

theoretical cancer risk that I calculated, which is 4.1 in a million. Everybody will be exposed at a level that results in a risk far less than that.

That is because I put in what is often termed worst case exposure variables. These variables include an exposure duration of every minute of every day for 50 weeks for an entire 70 years. There's actually a two-week period where we don't assume exposure in this. These are Cal-EPA and USEPA exposure parameters that are deemed useful in determining an upper bound. But it's not what somebody would be exposed to.

I also use that exposure concentration and that risk at a point of maximum impact. Which, in this case, happens to be just outside the fenceline of the facility, the proposed facility. No one is going to be living there; no one's going to be standing there for 70 years.

PRESIDING MEMBER GEESMAN: Excuse me, did you say seven or 70?

DR. GREENBERG: Seventy.

PRESIDING MEMBER GEESMAN: Seven-zero?

DR. GREENBERG: Yes. This facility probably is not going to exist for 70 years. Nevertheless, we assume a standard lifetime. Yes,

people do live longer; some people, unfortunately, don't live as long.

But that is, right now, the standard parameter because we assume that they are exposed to toxic air contaminants at other locations. And if they move from this neighborhood to another neighborhood in California, or the United States or elsewhere, that they may still have some exposure, whether it's similar or however greater or less, it may still be similar. So we assume that 70-year period.

The cancer potency values for the various carcinogens emitted, which are emitted in very small quantities, and are really a tribute to the analytical chemists in their ability to measure them at the stack, you will not be able to measure them at the point of maximum impact. It's too small. We don't have the ability to do that. You can't measure it in a neighborhood.

Nevertheless, the cancer potency factors that I used are also a upper-bound estimate. They're not a lower estimate. They're not what we term a most likely estimate. They're what we call a 95 percent upper bound. That's technical terms for saying that it's the high end of the potency

factor.

In fact, for California we have our own cancer potency factors that differ sometimes from USEPA cancer potency factors.

You put all of that together, the exposure times, the cancer potency, the assumptions of a 70-year exposure, there you have a worst case public health estimate.

And yet, that's what we use so that when I come before you on this project, or if it's a project down in Chula Vista, or one up in Eureka, you know that I have conducted a human health risk assessment using the same assumptions and the same methodologies. And you can compare those risk assessments from those various projects.

HEARING OFFICER KRAMER: Thank you.

DR. GREENBERG: You're welcome.

HEARING OFFICER KRAMER: Any -- Mr. DuBose, right?

MR. DuBOSE: Yes, again.

HEARING OFFICER KRAMER: Okay, be brief because you said you didn't have anything.

MR. DuBOSE: Yeah, I think the odds of PG&E building a power plant at San Onofre 180 degrees out of phase would be pretty outside,

wouldn't you?

DR. GREENBERG: Could you repeat that? I thought I heard PG&E building a power plant in San Onofre --

HEARING OFFICER KRAMER: Yeah, I'd have to say I just --

PRESIDING MEMBER GEESMAN: It's not clear that that has anything to do with this particular project, so we really do need to move on to our other issues tonight. We've got a lot of people here that want to focus on subjects we haven't talked about yet.

So, did you have something, Mr. Dubose, on this project?

MR. DuBOSE: Yes, real quick. I'm just, you know, I'm hearing all of these statements about all of this engineering and all the rest of that stuff. And, you know, this percentage and that percentage, and you know.

And I'm just saying, you know, they built a whole plant 180 degrees out of phase and they had the plant built until one of their clerks found out that they had put the north side on the south and the south side on the north side.

PRESIDING MEMBER GEESMAN: Are you

speaking of the Diablo Canyon nuclear facility?

MR. DuBOSE: Or Diablo Canyon; I knew it was either San Onofre or Diablo Canyon. But I think it was just, you know, all of these, you know, facts and figures and all the rest of that stuff. They have to be taken into consideration. And also taken with a grain of salt.

HEARING OFFICER KRAMER: Thank you. Sir, and then I guess that's it. You'll be the last comment on this topic.

MR. McDONALD: The Tiera Plant will be belching out 128,000 pounds of --

HEARING OFFICER KRAMER: You need to say your name, again.

MR. McDONALD: -- the ammonia a year. How many pounds of ammonia a year will this plant be, Russell City will be belching out?

HEARING OFFICER KRAMER: I think that's an air quality question. Mr. Layton, if you can look it up in between the topics we'll let you come to the mike and give him that information.

Please state your name, sir, for the court reporter. You got it? Okay.

MR. McDONALD: You can get an answer for that, then?

HEARING OFFICER KRAMER: In a minute.

MR. McDONALD: Okay. How many of you live in Hayward? Anyone? How many of you live within five or ten miles of Hayward? Would you move to Hayward if you were forced to get out of your existing house? Would any of you do that?

HEARING OFFICER KRAMER: Sir, I'm not sure I see your point.

MR. McDONALD: If these two plants are in, the resulting health effects are going to be terrible. We won't be able to sell our houses to anyone.

The ammonia gas has been compared -- the smell of it, which I've seen many things downloaded on the internet. All they say is it's pungent, the smell of ammonia, pungent, very pungent.

Only one place did I see a definition of what pungent meant. And what it said was it smells like urine. How many people are going to be moving into an area where the air smells like urine? Any volunteers?

HEARING OFFICER KRAMER: Before that rumor --

MR. McDONALD: I don't see anybody

raising their hands and willing to do it.

HEARING OFFICER KRAMER: Let's ask staff. Is this plant expected to emit any amounts of ammonia that would be detected by somebody through their nose?

DR. GREENBERG: No, Mr. Kramer. The ammonia odor threshold is between 2 and 5 parts per million. And even -- there would be two sources of ammonia, the ammonia slip that would come through the stack, and that is so dilute when it exits the stack. I mean, even if you put your face up to the stack, avoid getting it burned off, it would be doubtful if you would be able to smell it. You're certainly not going to be able to smell that after it disperses into the air.

The second source would be if there were a leak, or a spill of ammonia onsite. My calculations and estimates, using highly conservative EPA-approved air dispersion models show that if there is a catastrophic release, not just a minor, but a catastrophic release, there would not be detectable odor in the neighborhood, or actually offsite. You would not be able to detect it offsite.

HEARING OFFICER KRAMER: And that's

because --

MR. McDONALD: That's not what the downloads say from on the internet.

HEARING OFFICER KRAMER: Downloads from where?

I guess what Dr. Greenberg is telling you is that's apparently a rumor that, in his opinion, is unsubstantiated. Did you have anything further to say about public health?

MR. McDONALD: Okay. Just remember, we're the ones that have to suffer this. The population of Hayward are going to be suffering.

HEARING OFFICER KRAMER: Here's an answer to your other question.

MR. LAYTON: Sir. Mr. McDonald. The 240,000 pounds per year at 10 ppm, since it will -- 10 ppm is the upper limit --

MR. McDONALD: You have my card up there. It's Robert McDonald.

HEARING OFFICER KRAMER: We've got it.

MR. LAYTON: The upper limit is 240,000 pounds per year of ammonia from Russell City train 1 and train 2. We don't think it'll get there because they operate much lower than 10 ppm.

HEARING OFFICER KRAMER: That would be

over a whole year?

MR. LAYTON: That would be over a whole year, if they operated at 10 ppm that whole year.

HEARING OFFICER KRAMER: Thank you.

MS. SPEAKER: Could you repeat that? 240,000 pounds --

MR. LAYTON: Pounds of ammonia per year if they operated at 10 ppm of the full year, which we don't really expect. Most of these plants operate about 1 ppm.

HEARING OFFICER KRAMER: Okay, I think that was the last public health comment or -- okay, a couple more. Very quickly.

MR. TOTH: I just want to clarify your response that in the cancer risk assessment that PM2.5 was not considered on its own to have a quotient of cancer impact, that even in light of this study, we're still assuming that the cancer impact of PM2.5 is because of the already-considered toxic materials that might be part of that.

DR. GREENBERG: PM2.5 was considered indirectly, but it was considered. I don't understand what you mean by on its own, because, you know, -- are you trying to say that PM2.5 in

particular matter is strictly carbonaceous material and has nothing adsorbed to it, which scientific studies show that's not true.

MR. TOTH: So, yeah, so in light of this Journal of the American Medical Association study, which cited a cancer risk associated with unclassified PM2.5, that the treatment of this study and for this particular case is that assumed the PM2.5 was simply carbon. That no additional cancer risk simply from associated with 2.5, PM2.5, aside from the toxic chemicals that have already been considered a cancer risk.

DR. GREENBERG: Mr. Toth, I think that you're misinterpreting or misstating the findings of those articles. They don't know what's on the PM2.5, or what source. It's strictly an association by looking at PM2.5, though. Because they did not conduct any analytical testing of the 2.5.

So it's 2.5 in the air from all sources, road dust, agricultural, and, of course, combustion. But scientists believe that it is the toxic chemicals, the carcinogenic substances that are adsorbed to the surface of the PM2.5 that would cause that cancer in that association.

That's what I account for in the human health risk assessment.

MR. TOTH: So this study essentially does not change the calculation in the model of PM2.5, by itself, is not assigned a cancer potency by California Air Board?

DR. GREENBERG: The only cancer potency value assigned to particulate matter, in and of itself, is diesel particulate matter, which, of course, is included as particulate matter in the study, and the other studies that I mentioned.

Again, I know it's a hard concept. These epidemiologic studies do not say PM2.5 from that source that contains the following toxic air contaminants, is causing this increase in cancer incidence in the area that we study.

So they're looking at every bit of 2.5, PM2.5 in the atmosphere. And they're measuring just that, total gross number of PM2.5.

What I'm trying to say is that the toxic air contaminants that are adsorbed to the surface of the PM2.5 are included in that study. And that's more than likely what's causing the incidence of cancer.

I discussed this with Dr. Michael

Lipsett of the California Department of Health Services. And he concurs with that interpretation of these studies. You'll see that site and that quote in my response to your comment for Eastshore. And so you're certainly free to go further on that.

But I do want to make clear that we do account for what is adsorbed to the PM2.5. And we cannot just say, okay, here's another number. We're going to double-count this. We're going to add the polynucleararomatic hydrocarbons, which are on PM2.5, so we're already counting those. And now we're going to count all the PM2.5, and we're going to double-count this and put it into a cancer risk assessment.

We can't do that because, one, it would be double-counting; and two, no agency yet, no scientists have come up with any type of cancer potency just for PM2.5, with the exception of diesel particulate matter.

MR. TOTH: Okay, I won't belabor that point any further.

DR. GREENBERG: Thank you. Maybe I'm just bad at explaining things.

MR. TOTH: The last question I have is

verification of toxic emissions. And in light of the plant's potentially starting up and shutting down, how are we verifying that this plant will, in fact, fall under the limits of toxic air contaminants in its ongoing operation?

DR. GREENBERG: And I believe that that is a proper question to ask. And I will call on my colleagues from the Bay Area Air Quality Management District, who have written certain conditions and requirements in the final determination of compliance.

MR. TOTH: Does the CEC actually verify it on its own, or do they depend on the air district?

DR. GREENBERG: For this particular facility, the Russell City Energy Center, that will be verified in the Air District's rules and regulations for source testing.

Do you want to amplify on that, Mr. Nishimura?

MR. NISHIMURA: We have permit conditions requiring them to meet certain limits. And these limits are, we have to do a source test. You cannot do it by continuous emissions monitors. You have to go out and actually take samples from

the stack.

And they are CARB-certified methods that we use to certify the toxic air contaminants.

MR. TOTH: I guess more specifically what I wanted to know is how often will you be doing this. Will you be doing this as the plant starts up and as the plant is running? And do you do this just once, or do you do it every year, every couple of months? What's the regime of verification?

MR. NISHIMURA: There is a requirement at the initial startup that they do these tests. And then we will require it a year after that. And if it shows to be insignificant, after several years we will not require it. But we would probably require it -- or we would go out, the District will go out, themselves, and do these tests to verify that the project owner, that basically they're complying with the toxic air contaminant limits.

MR. TOTH: Do you measure both cold start and warm operation period?

MR. NISHIMURA: We do not do it during cold starts. We only do it at steady state. Because it's so difficult to do it at startup,

during startups.

MR. TOTH: So is it true that there is no way of verifying if this plant decides to start up repeatedly, that we have no way of knowing, verifying, what the air contaminant emissions actually are in this case?

MR. NISHIMURA: That is correct.

MR. TOTH: Thank you.

HEARING OFFICER KRAMER: Was there one more gentleman who wanted to make a comment? I guess not.

Okay, let's close the public health and hazardous materials topics. Did any of the parties have any additional comments to make --

MR. WHEATLAND: No.

MR. HAAVIK: No.

HEARING OFFICER KRAMER: And we had no new exhibits, I believe, to introduce.

So, let's take a five-minute break and then we will finish with our last topic, which is basically the aircraft issue.

PRESIDING MEMBER GEESMAN: Aviation.

HEARING OFFICER KRAMER: Aviation issue, which includes the topics of land use and traffic and transportation.

(Brief recess.)

9:11 p.m.

HEARING OFFICER KRAMER: The next topic, two topics, actually, are land use and traffic and transportation. We've put them on together basically to deal with the aviation-related issues.

But, of course, if the members of the public have comments on some other traffic or transportation or land use aspect, feel free to deliver those to us when the time for public comments comes.

I think this panel before us will be basically addressing the aviation issue.

Before we start with any testimony I'd like to have each of the members of this panel identify themselves, starting with Mr. Knight.

MR. KNIGHT: My name is Eric Knight; I supervise the community resources unit at the Energy Commission. We're responsible for land use and traffic and transportation assessments.

Jim Adams and Shaelyn Strattan of my staff have prepared the testimonies for land use and traffic and transportation on the Russell City project.

MR. WALTERS: I'm William Walters. I'm a consultant working with the California Energy Commission. I evaluated both the visual plume and the plume vertical velocity for the power plant.

MR. ADAMS: I'm Jim Adams; as Eric said, I'm the principal author of the traffic and transportation analysis for the Russell City Energy Center.

MS. STRATTAN: I'm Shaelyn Strattan; I performed the land use evaluation for the Russell City Energy Center project.

DR. DAVY: My name is Doug Davy; I'm with CH2M HILL. I'm a consultant to the project owner. We've assisted Calpine/GE in preparing the application for certification.

MS. KILLIP: My name's Christine Killip. I'm an atmospheric scientist and Managing Director of Katestone Environmental. We were asked to look at the vertical plume velocities.

MR. DARVIN: My name's Gregory Darvin; I'm a consultant with Calpine -- and I helped prepare the air quality assessment and the vertical plume assessment.

MR. GRAVES: I'm Marshall Graves and I'm an aviation consultant retained by CH2M HILL.

MS. FORD: I'm Carol Ford and I'm the President of the San Carlos Airport Pilots Association and the Vice President of the California Pilots Association for Region 3.

I'm also a volunteer with AOPA, that's Aircraft Owners and Pilots Association. And they have over 400,000 members nationwide. And I also am a private pilot.

HEARING OFFICER KRAMER: And as I understand it, you're here as Mr. Haavik's witness, is that correct?

MS. FORD: Yes.

HEARING OFFICER KRAMER: Before we start the testimony, also I'd like to have the parties identify the additional exhibits, if there are any, that relate to this topic.

I don't believe staff has any additional ones.

MR. RATLIFF: That's correct.

HEARING OFFICER KRAMER: Mr. Wheatland?

MR. WHEATLAND: Yes, we have several that I have not yet identified. Exhibits 24 through 27 are our plume vertical velocity assessments that you'll be hearing about. Exhibit 28 is the prepared testimony of the Russell City

Energy Center regarding thermal plumes and aviation.

Exhibit 29 is the plume vertical velocity assessment, which was a supplement that is done by Atmospheric Dynamics.

Exhibit 30 are the declarations of all of our various witnesses in this proceeding on topics, including this topic.

And exhibit 31 is the supplemental testimony on the question of the cumulative impacts of thermal plumes.

HEARING OFFICER KRAMER: Okay, some of you witnesses may have come in late. Were you all sworn by the court reporter? Okay, thank you.

Let's start with staff, or rather the applicant -- well, actually the concerns here were expressed by staff, so it might be better for the --

MR. WHEATLAND: Our preference would be that since the applicant bears the burden of proof on this issue, that we would like to make the initial presentation.

HEARING OFFICER KRAMER: Okay, that's fine.

PRESIDING MEMBER GEESMAN: Let me give

one brief comment of advice to all of you. The purpose of the hearing tonight is to assist Commissioner Byron and me in coming to a recommended decision through the development of an evidentiary record.

We have extensive written testimony from each of you. We already know what's in that written testimony. Don't waste your time or our time in excessively repeating it.

We're more interested in where you disagree with each other. It's going to help the development of our record a lot more than simply repeating what you've already submitted to us in writing.

And I emphasize, the purpose of the hearing is to help Commissioner Byron and me; it's not to make speeches in front of the public, or to try and derive some entertainment value. Thank you.

DIRECT TESTIMONY

DR. DAVY: As I stated earlier, my name is Doug Davy. My testimony on this topic addresses three main points: That the Russell City Energy Center complies with all federal laws. That the Russell City project complies with the

Hayward Municipal Code. And that Australian standards should not apply to Russell City.

First, the Federal Aviation Administration has issued a determination of no hazard to air navigation to Russell City in response to the filing of the form 7460, notice of construction.

Thank you. Thank you, that's better.

The project owner disclosed to the FAA that the notice of construction would be for a power plant. The determinations of no hazard are without restriction.

the Federal Aviation Administration is the agency that is most responsible for aviation safety. The FAA released in 2006 its report called, Safety Risk Analysis, Aircraft Overflight on Industrial Plumes.

This report examined more than 800,000 pilot reports and found no documented accidents or safety incidents involving thermal plumes from industrial sources. The FAA concluded that the risk from such plumes is essentially zero. And that's quoting from the report, essentially zero.

Second, and here's a major point of disagreement with the staff, the City of Hayward

has made it clear that the RCEC does comply with Hayward Municipal Code section 10-6.35, which prohibits siting of any land use that would endanger the maneuvering of aircraft within the Airport's safety planning zones.

The City has correctly interpreted the applicable and current safety planning zone to be the zone called the traffic pattern zone in the Hayward Executive Airport master plan of 2002. The RCEC is located one-half of a mile outside of the traffic pattern zone.

Third, although the aviation risk screening procedures used in Australia should not apply to the RCEC, we have used Australian-developed mathematical models to assess plume heights. Australian scientists have developed the most widely accepted methods for modeling thermal plumes, and we have asked Christine Killip, one of the developers of this method, to conduct this analysis. And you will hear next from Ms. Killip.

The results clearly show that plume velocity is acceptably low at the altitudes at which aircraft will fly. Furthermore, the FAA has issued a notice to airmen that prohibits aircraft from flying over or near power plants.

And to make a safe situation even safer, the applicant would agree to placing a notice in the airport facility directory and flight guides of the project location. And we understand that a letter that was received from the Federal Aviation Administration yesterday recommends the same course of action, issuing notices to pilots that will warn them of the location of the Russell City Energy Center so that they can avoid it.

Therefore, we conclude that the RCEC poses an extremely low risk to aviation. And, again, those are the words of the FAA safety study.

DIRECT TESTIMONY

MS. KILLIP: My name is Christine Killip. I'm an atmospheric scientist and Managing Director of Katestone Environmental. Katestone Environmental is an air quality consultant company based in Brisbane, Australia.

We were commissioned to analyze the vertical plume velocities generated by the cooling towers and gas turbine plumes from the Russell City Energy Center.

For this assessment we followed Australian guidelines. The Australian guidelines

that have been issued by the Australian A (inaudible) over civil aviation -- authority. In Australia, CASA requires that a proponent of a facility with an exhaust plume that exceeds the limiting value of 4.3 meters per second at the lowest level -- to assess the potential hazard due to the plume.

The assessment guidelines require the use of site-specific meteorology; and may also require an assessment of the enhancement due to vertical -- enhancement due to multiple plumes.

The method used in our assessment follows these guidelines. And it uses a three-dimensional wind field model called (inaudible) to generate site-specific meteorology.

The vertical profiles of wind speed were then used in a method developed by Katestone Environmental on merging of plumes. The Katestone method is based on well-verified laboratory and theoretical treatments for buoyant jets and it was based on work developed by Dr. Kevin Spillane.

PRESIDING MEMBER GEESMAN: Can you tell me where the 4.3 standard comes from?

MS. KILLIP: I can't, actually.

PRESIDING MEMBER GEESMAN: Is there

anybody that can?

MS. KILLIP: I don't know. I mean we've been doing these assessments for over ten years and we've used that guideline. And I don' know where it originated from.

Our method deals with various stages of plume development and solves the governing differential equations. It involves the initial jet core of the plume. It works out with a touch where they fully merge; and at the point where they fully merge, it assumes all buoyancy is conserved. And at that point is then treated as a single gaseous plume that's circular.

We also assume a neutral environment which is conservative. And the wind direction is always parallel to the line of stacks, which is the maximum plume enhancement.

PRESIDING MEMBER GEESMAN: What's that neutral environment?

MS. KILLIP: It's when the temperature is neutral, so we don't assume that there's a loss of temperature from the plume.

We've assessed multiple operating conditions for the gas turbines for worst case winter condition at full load. And, of course,

the nine cooling towers, as well.

The results indicate that the height at which the average plume vertical velocity is decreased to 4.3 meters per second is around 300 feet for the nine cooling towers. And around 600 to 640 for the two gas turbines.

We've also undertaken a verification assessment using alternative method for the merged plumes. And this was using a publicly available and well validated model. This assessment assumed a buoyancy enhancement factor with an alternative way to do the assessment. And it assumes complete conservation of buoyancy at the stack top. These results confirm the methods and the results generated using the Katestone method.

We were also asked to undertake an assessment under calm winds. And the calm wind scenario is something that we only use in Australia for small assessments as a screening tool, and for assessments typical to this project, we generally do a full assessment using site-specific meteorology.

However, for the calm wind scenario it's basically the same methodology, except that's obviously a lot easier because there's no wind

speed involved. And the results show that all plumes, merged plumes will have an average vertical velocity below 4.3 meters per second by about 1000 feet above ground.

DIRECT TESTIMONY

MR. DARVIN: My name's Greg Darvin; I'm a meteorologist with Atmospheric Dynamics. The Australian approach that Christine just described pretty much mirrors the standard approach we use here in the United States for performing health risk assessments and criteria pollutant analyses.

Specifically, we start off with the screening level assessment where we use a standard set of meteorological conditions that are considered conservative. By that I mean we use stable to unstable atmospheric profiles with a variety of wind speeds. Similar to sort of the calm case that Christine just described.

Typically, if you don't pass with the screening assessment we do a health risk assessment or criteria pollutant analysis, the next step, the next logical step is to move on with site-specific meteorology.

So the health risk assessment that was done for Russell City, the criteria pollutant

analysis that was done for Russell City, and even the visible plume analysis the staff performed, site-specific meteorology was used.

One of the biggest, I guess, disagreements we have with staff is that they just stopped at the screening level assessment basically calm winds. They never went on to use site-specific meteorology.

So the calm wind analysis in Australia is actually not even considered by CASA, just because it is so conservative. If you do have a small source you can often get away and show that it works. But in the states here, if I was to try to permit a major source such as Russell City with just screening meteorology, we would show violations of ambient air quality standards and health risk levels.

So the calm approach is really a very overly conservative, if not unrealistic, assumption in the atmosphere. Anybody that lives in the Bay Area, you know, certainly in the East Bay it's quite a windy spot. The Bay Area has a series of monitoring stations actually in the East Bay. And for example, Union City, over the last seven years, they've only recorded nine calm

hours. Fremont we had zero calm hours over five years.

PRESIDING MEMBER GEESMAN: How would you define a calm hour?

MR. DARVIN: The starting wind speed threshold on an anometer that the Bay Area maintains is 0.2 meters per second. So on average, over 60 minutes, if the wind speed was less than .2, the anometer registered that as a zero.

PRESIDING MEMBER GEESMAN: And how many hours a year at the Russell City site would fit that definition?

MR. DARVIN: Well, we used -- what year was it, Christine, 1994 -- I don't have the exact statistics for that particular year, but over seven years it was only nine hours. So, I think --

PRESIDING MEMBER GEESMAN: Nine hours over seven years?

MR. DARVIN: Nine hours over seven years, correct. But I believe the calm analysis that Katestone performed there was two hours of calms?

MS. KILLIP: Up to 300 meters.

MR. DARVIN: Yeah, up to 300 meters. Which is another important assumption because ground-level winds, they might be zero, but you don't have to go very high up in the atmosphere to start getting wind speeds.

PRESIDING MEMBER GEESMAN: And is there a convention by which you would project what those wind speeds are --

MR. DARVIN: Yes.

PRESIDING MEMBER GEESMAN: -- at 300 meters?

MR. DARVIN: There are several methods, actually. So the statistics for the East Bay show there's very few calm hours over large datasets.

So, thank you.

DIRECT TESTIMONY

MR. GRAVES: Hearing Officer Kramer, Commissioners, I'm Marshall Graves. Thank you for allowing me the opportunity to speak on behalf of the Russell City Energy Center.

I'll just begin by just briefly highlighting my background and experience, some of this is not contained in chapter 3 of the thermal plumes and aviation document which you already have.

I'm a 35-year aviation professional. A former Navy Commander, current naval aviator. I have a masters degree and bachelors degree in mechanical engineering from the University of Michigan.

My FAA ratings, I'm a licensed airline transport pilot with a multi-engine rating, which is the highest aviation rating available to pilots in the FAA program. I'm also a commercial helicopter pilot. I have more than 4000 hours of total flight time, split almost evenly between airplanes and helicopters.

Some of my former duties I've had that have relevant experience to the issues at hand. I was the Chief of Aviation for the California Department of Forestry for five years. And I was responsible for all flight operations, aircraft maintenance and aviation safety for a firefighting fleet of 55 airplanes and helicopters operating in extremely hazardous conditions.

I was the Director of Operations at the Naval Aviation Depot here in Alameda. And I had a lot of opportunities and frequent flights in the local area as a Navy pilot and through the local air space.

I'm a designated -- or I was a designated aerospace engineering subspecialist in the U.S. Navy. I was an engineering instructor for three years at the U.S. Naval Academy. And I was a joint service standardization instructor pilot in the U.S. Navy.

I've been asked to comment on the effects of the predicted thermal plumes on small aircraft and helicopters that might encounter those plumes. And based on your comments before we talked, you've asked me to restrict my remarks to those topics where there could be disagreement with the staff assessment.

So some of the information I have here may duplicate slightly what you've already read in chapter 3, but I'll just try to emphasize the key points. And then you can ask questions.

First of all, the FAA study that was conducted on thermal plume counters was conducted by 11 aviation professionals who are all subject-matter experts in all aviation disciplines, such as risk management, flight operations, aviation safety, airspace management and air traffic control.

After extensive studies of over 846

million flight hours over 30 years of accident data, they concluded that the risk to aircraft and the public that would be affected by the construction of the RCEC site would be extremely low and essentially zero.

And that the probability of an incident would be less than one in one billion, which was the lowest threshold of computation in their program. It would have gone lower if they could have had a cutoff lower.

PRESIDING MEMBER GEESMAN: You said a billion with a "B", right?

MR. GRAVES: Billion with a "B". Their conclusion was the probability of an aircraft incident associated with the construction of this plant would be less than one in one billion. In spite of that finding by 11 aviation subject-matter experts who have been doing this all their life, the staff assessment and the CEC Staff concludes that it's their belief that this is still a significant hazard to aviation. But they offer no positive data, other than it's their belief, or they still believe a significant risk involves.

One of the things I was asked to do is

look at the effect of the thermal plume on small aircraft and helicopters. Before I start, I used the 4.3 meter-per-second criteria which converts to 14 foot per second. That's a vertical speed, or vertical gust encounter of 840 feet per minute plus or minus.

The definition for aviation weather forecasting of light turbulence is vertical gust and wind shears on the order of 300 to 1200 feet per minute. This is light turbulence.

The 840-foot-per-minute plume velocity falls well within the mid-range of light turbulence, far below moderate turbulence, which is defined 1200 to 2100. In spite of that range the staff assessment concludes that encountering light turbulence could upset an aircraft to the point of causing an accident. I beg to disagree.

I looked at stall margins for aircraft that would encounter these plumes. I chose a Cessna 172 aircraft, which I thought would be representative, and a typical aircraft that might be flying in the Hayward Executive Airport airspace.

I chose two speeds, one was 115 cruise speed, and the other was a 70 knot cruise speed,

which I thought would represent both ends of powered flight where the aircraft would more likely be configured in that situation in an area that might be considered in the vicinity of the proposed site.

At a Cessna 172, when powered-on condition, that means engine powered in flight, typically would stall at a nose-up attitude of about 25 to 30 degrees. That's a pretty definite high pitch. Now, that degree depends significantly, well not significantly, but somewhat depended upon the aircraft weight and the distribution of the load within the aircraft, depending on where the center of gravity is and how much nose pitch you would need.

To maintain level flight at that speed you would probably have a slight nose-up pitch, maybe 1 degree nose-up; possibly, you know, level, wings level, nose on the horizon.

At the 150 knot speed encountering this vertical plume at 14 feet per second in a vertical mode, that would increase your angle of attack about 4 degrees. So that would reduce your stall margin from 20 to, maybe 25 to 30 to maybe 20 to 25 degrees, which means that aircraft would still

have anywhere from 20 to 25 degrees of nose-up pitch prior to wing stall and aircraft stall.

At the slower speed of 70 knots the vertical gusts encountered would increase the angle of attack approximately 7 degrees, which still, you know, provides an enormous amount of nose-up pitch still available before a stall is encountered.

I looked at the gust loads on the aircraft in terms of certification and structural integrity of the aircraft. The FAA certifies small airplanes to be certified to encounter gusts of 3000-foot-per-minute. And that's the minimum gust speed that they have to certify small airplanes for, both up and down, at 3000 feet per minute.

And aircraft are designed with factors of safety that far exceed that. So you can see that a gust encounter of 840 feet per minute, which is in the middle of light turbulence, is very very very far removed from any structural integrity problems about damage to the aircraft.

Helicopters are certified by the FAA to encounter gusts up to 1800 feet per minute minimum in operating distance. And, again, helicopters

are designed to even higher factors of safety because of the way the aerodynamic loads are imposed on the rotors and the aerodynamic surfaces.

And one thing to consider that the FAA considers gust encounters up to the certification limits of the aircraft to be well within the capability of control for pilots at any skill level. Any skill, that means student pilots through commercial pilots, through airline pilots.

So, when these aircraft are certified to be able to maintain control and gust encounters, those definitions and specifications are written with the expectation that any pilot at any skill level -- you don't have to be a test pilot -- that any pilot at any skill level could maintain control of the aircraft.

So, in conclusion, with that FAA study I strongly disagree with the staff assessment. That I agree, considering those factors, it just further substantiates the finding that there's essentially zero risk to the aircraft that would encounter a gust plume from the facility.

Just one or two comments on air traffic. All IFR traffic and instrument conditions would be

under positive control, and under control altitudes and headings assigned by air traffic control, or in accordance with depicted procedures.

I've looked at every single approach into the Hayward Airport. Not one of those approaches would ever place an aircraft anywhere near the facility of the RCEC site.

Under VFR conditions they would still be under tower control during aircraft operations. They would have to conform to whatever tower instructions are given. But regardless of what those instructions are, under VFR conditions all helicopters and small airplanes are required to fly by the doctrine of see-and-avoid all obstacles and all hazards, and not to hazard their aircraft or operate it in a way that could endanger personnel on the ground.

I looked at approaches into the Oakland Airport, in case that may be of concern, rather than just the Hayward. All Oakland arrivals to the Hayward Airport runways are conducted over the top of the Hayward Airport at altitudes that are far above the Hayward Airport.

There are no approaches or feeder routes

into the Oakland Airport under instrument conditions that would come anywhere near the RCEC site. And there would be no conflict at all or any concern that an aircraft flying approach into the Oakland Airport would in any way come close to a vertical plume, or even come close to other aircraft in the Hayward Airport airspace.

The airspace in there is carefully designed for traffic flows and separation of aircraft. In April 2007 the Hayward Airport tracked 10,000 flights in the Hayward Airport environment. And they found that of those 10,000 flights, only 40 aircraft even came close to where the proposed site would be. And that's an un-alerted avoidance where there was nothing to avoid to begin with.

So in conversations with the Hayward traffic control tower and FAA officials they say that the southwest area where that site would be located is in their lowest traffic area that they have to manage. And it's an area already designated as a low traffic area.

And then one last comment about pilots. All pilots are trained to respond to unusual attitudes that are far in excess of any disruption

to flight that would occur with a gust encounter from a thermal plume.

A student pilot cannot solo unless he's satisfactorily demonstrated his ability to control an aircraft when it's been disrupted or destabilized by any type of turbulence.

And only when he's shown proficient ability to respond to aircraft upsets and unusual attitudes will he be given a safer slow flight. All pilots are indoctrinated into pilot and command responsibilities; and only the pilot in command of the aircraft can be held accountable for the safety of the flight.

And they are all directed to fly their aircraft with see-and-avoid hazards, and to obey all warnings, precautions and prohibitions that may be encountered in the airspace in which they're flying.

Thank you for this opportunity.

HEARING OFFICER KRAMER: Thank you.

MR. ARGENTINE: That's the applicant, I think.

HEARING OFFICER KRAMER: Right. Next will be the staff's witnesses. Who's going first? Ms. Strattan.

DIRECT TESTIMONY

MS. STRATTAN: I'm Shaelyn Strattan. I prepared the land use evaluation for this project. And I think we need to get the other mike.

(Pause.)

MS. STRATTAN: Shaelyn Strattan with the California Energy Commission. I prepared the land use evaluation for this project.

A little bit of information about my background. In addition to having worked as a senior planner for a county -- inland use, I was also an air traffic controller with the FAA.

The first thing that I would like to note is that there was a recent testimony said about numerous incidents that pilots can avoid. There are numerous incidents and accidents every year that are due to pilot error, loss of control. So despite the aviation expert's inference, there is a potential for inadvertent or accidental flight over a plume that would be in the general vicinity.

The concern we have is that the plant at the Hayward Executive Airport is within the proximity of the Hayward Airport. It's within what is called the airport influence area, which

is approximately three miles. This is identified by the Alameda County Airport Land Use Commission. That is an area that is supposed to be void of any hazards. It is within the airport airspace, as identified in the Airport's master plan.

The conical zone which deals with obstacles, both of those are identified in the master plan that you have a copy of. And it is within the identified airport approach zoning plan area, as it is written in the current municipal code.

We do have a disagreement here in that the City has indicated the previous manager, city manager, has indicated that the map that was used in the existing code is no longer applicable. And that they are substituting the traffic pattern zone plan that is in the master plan.

They have us at a bit of a disadvantage in this case because at this point that is what is still written within the LORS. There has been no action by the City Council, Planning Commission or Planning Department to change that since the plan was adopted in 2002.

And according to the planning director, there has been no application for any kind of

variance, or even the siting of a facility that would have tested their interpretation of that.

At this point staff feels compelled to deal with what is written and on the books at this time. And at this time that would mean that the plant would be within the airport approach zoning plan. And according to their regulations, should not be anything that would create a hazard should not be sited within that zone.

We've already talked about the fact that it is 4.3 meters per second; that it has the potential to extend up to 1000 feet and destabilize the air in that area under the right meteorological conditions.

And according to the information from the Australian study that was acknowledged as acceptable criteria by the FAA in the safety study that's been quoted, that intentional or inadvertent overflight of the industrial plumes at low altitudes, less than 1000 feet above ground level, during high velocity operation of the facility could possibly cause aircraft upset. Particularly if the plume impacts on one side of the aircraft wing. And it could also result in a resulting incident.

This came directly from the email that Mr. Davy received from CASA in Australia when asking about the applicability of the 4.3 meters per second plume velocity.

PRESIDING MEMBER GEESMAN: So, just so I'm clear, it's your testimony that the area of concern that we should be focused on is 1000 feet and lower?

MS. STRATTAN: Correct. There is -- it's a bit like a box with the air space. And there are areas within that air space where aircraft are not advised to fly for a variety of reasons; noise abatement; existing obstacles such as radio towers. And there are also specified directions where they are encouraged to fly, or that the tower will send them to fly, within this air space.

And the area that we are most concerned about is up to that 1000-foot level.

PRESIDING MEMBER GEESMAN: Do you have any insight as to where this 4.3 number comes from?

MS. STRATTAN: No, from what -- Mr. Davy also emailed CASA regarding that. And they basically said, it's lost in antiquity.

So, where it came from --

PRESIDING MEMBER GEESMAN: So we use it because the Egyptians handed it down --

(Laughter.)

MS. STRATTAN: The hang-gliders considered it a hazard, so -- but what we have is their evaluation that it could cause aircraft upset or damage. And the FAA has accepted that as reasonable to consider as a risk.

The aircraft they have identified both in the FAA study and in the Australian studies as most at risk are the smaller aircraft, which would be your single, twin-engine, general aviation type of aircraft, and helicopters or rotorcraft.

They also included hang-gliders, but there aren't a lot of those in the Hayward area. In fact, approximately 80 percent of the aircraft that are operating in Hayward are the small, fixed-wing general aviation type. And they have about 9 percent of the traffic there in helicopters.

The other things that would contribute to risk would be aircraft operating at lower altitudes, such as during takeoff or landing procedures. And that is due to the increased

plume velocity at lower levels and the proximity to the ground. In case there is an upset, the recovery time is less when they're lower.

Also, inexperienced pilots and those that are unfamiliar with the airport, and we have training facilities, both military and civilian, on the airport for helicopter and fixed wing.

There are currently a significant number of restrictions to the airspace. This is one of the concerns that we have, is that this plant, if constructed, would require, at a minimum, notification and avoidance, which would further restrict the airspace in the area.

There are extensive noise abatement procedures in place for the Hayward Airport -- I believe you have those in your packet -- to show that basically to the northeast and southeast of the facilities there are very few areas that aircraft are allowed to fly.

There are towers that are to the southwest of the proposed plant that restrict that area, but primarily the area to the southwest, the southwest quadrant of the airspace is the area right now that is the least restricted of that airspace.

And although their aviation specialist mentioned that there are no identified ILS procedures, there are noise abatement procedures. The City of Hayward has a prescribed helicopter arrival and departure route. That's a cone, basically, from the helipad on the center on the south side of the airport that extends into that southwest quadrant. And ends just before the project site. So it's going to be directing helicopters in that area.

They also have a crosswind IFI departure for runway 28 that has the aircraft only maintaining the runway heading to 400 feet above, about 300 feet above the ground level, and then turning left or west --

PRESIDING MEMBER GEESMAN: I want to stop you if I can and get a better handle. I know why we need to have a concern about public safety. And I know why we need to have a concern about conformity to LORS.

I'm not clear and would like a better understanding of what your concern is on impact on air traffic if it is not one of public safety or conformity of LORS. I've not heard that come up in one of our cases before.

MS. STRATTAN: It is in addition to the concern for public safety and the inconsistency with the LORS. It is the loss or the additional restrictions to an already complex, congested, heavily restricted airspace.

In other words the areas that planes can fly safely without restriction are being further restricted by the construction of this, and possibly the Eastshore facility, where you have a plume that is a hazard.

The risk of encountering that hazard may be low, but the hazard is still there. Which means when we put out -- whether we put out a NOTAM on advising a pilot that they should avoid the area, or the tower advises them that they should avoid overflight, it's basically removing that area of airspace from -- it's no longer available for them to fly through. It's no longer available for them to do maneuvers around.

PRESIDING MEMBER GEESMAN: As a matter of public policy we should avoid that type of impact? Or does CEQA compel us to avoid that?

MS. STRATTAN: CEQA looks at that as a consideration; where it's compelled is within the LORS.

PRESIDING MEMBER GEESMAN: Okay. So then we're back to LORS. I'm trying to find boxes to put these issues in. I've got public safety here; I've got LORS conformity here. And I'm trying to determine what other interest is it we're attempting to pursue in the impact on aviation subject matter.

MS. STRATTAN: It's the protection of the airspace for the safe maneuverability of the aircraft.

PRESIDING MEMBER GEESMAN: So it's a public safety question?

MS. STRATTAN: So it -- a public safety issue; it's an aviation safety issue because their airspace is being restricted. It gives them less room to move around. It's an additional burden on the tower, on the pilots because they now have an additional obstacle to avoid.

PRESIDING MEMBER GEESMAN: But if it doesn't relate to safety, and it doesn't relate to LORS, I'm trying to determine if this Commission has a legitimate concern.

MS. STRATTAN: It's a LORS issue. It is there are LORS for the Alameda County Airport Land Use Commission in their policy and compatibility

plan that specifically says you don't put that hazard within their airport influence area. The project is within that site.

The City has LORS that said you don't put the hazard -- any hazard to aviation in that site. It's within their existing map.

There is --

PRESIDING MEMBER GEESMAN: Now, let me ask you on that now, and I don't want to get into a legal dispute. But based on your earlier testimony it sounds like it's your judgment that the City's ordinance still hinges on a map that the testimony of the applicant, and the indication from the City, is an outdated map.

Were the City's ordinance, in your judgment, tied to the 2002 map, would you have the same LORS concern?

MS. STRATTAN: I would, for two reasons. One, the LORS, while it ties it to a map, also specifies an area of two miles from the runways. So the map divides that area. But the two-mile radius is a fairly standard radius for airport protection areas.

Obviously the Airport Land Use Committee has a larger area than that.

In a letter that we received, and I believe you have a copy, from the FAA, they also mention that the traffic pattern for that area is FAA recommended 1.5 nautical miles, which is 1.7 miles approximately category B traffic pattern.

The traffic pattern zone that's depicted in the master plan is only one-mile traffic pattern. So it is inconsistent with the FAA recommended traffic pattern zone.

If we apply the FAA recommended zone, the project is again just inside that traffic pattern zone. So I would have concerns about it under those circumstances.

PRESIDING MEMBER GEESMAN: Yeah, but I read the FAA letter yesterday as recommending a remedy of notification not to have overflights below 1000 feet.

MS. STRATTAN: And that applies to the traffic and transportation. They will not comment on the land use aspects of it. However, they did specify on there the size of the traffic pattern zone. And it is in --

PRESIDING MEMBER GEESMAN: What are we to make of the fact that they won't comment on the land use aspect?

MS. STRATTAN: They don't have jurisdiction. And they absolutely refuse to comment on land use. I mention that in my testimony that the FAA does not have jurisdiction and will not comment on land use.

So that's the problem, is that restriction of airspace from a land use perspective. We are introducing a hazard. Whether the risk of encountering that hazard is high or low, it's still a hazard in the area. There is still a potential for a problem.

The FAA actually defines a hazard as any real or potential that can cause illness, death, damage to the equipment or damage to the operating environment. A hazard is a prerequisite to an accident or incident.

So, the risk is how much the opportunity is to encounter it. But the hazard will still be there. We would still have to set the airspace aside. And that would reduce the available airspace.

PRESIDING MEMBER GEESMAN: The applicant says that proximity to the KFAX broadcast towers already creates a restriction of overflight in the vicinity of the plant.

MS. STRATTAN: The KFAX towers, I believe, are about 1000 feet to the southwest. They are an obstacle in that area. However, as is shown by the tracks that were provided by the City, aircraft fly over the site gate that they set up 40 or more times per month, and they avoid the towers.

So, the towers being there would not protect the site, and do not prevent aircraft from flying through that area.

PRESIDING MEMBER GEESMAN: And the 40 number is the 40 out of 10,000 that was mentioned earlier?

MS. STRATTAN: That's correct. And that was -- April is slightly lower than the highest average months there. But it would be in that general vicinity.

PRESIDING MEMBER GEESMAN: So 40 out of 10,000 is .4 percent. Is that a big number or is that a small number?

MS. STRATTAN: It's not a big -- it's a small number; it's a small risk as far as the number of aircraft that currently fly across that. And that may be a consideration in the significance under CEQA, although there are other

things to be considered.

But it still doesn't change the fact that if the plant is built that airspace would have to be set aside and that would have to be avoided.

The other --

PRESIDING MEMBER GEESMAN: Which is what the FAA recommends?

MS. STRATTAN: Exactly. But by setting that airspace aside, it doesn't remove the hazard. There's still the opportunity for inadvertent overflight. There's still the opportunity for an accident as a result of that. And it still restricts the amount, it lessens the amount of airspace that's available for pilots to maneuver safely in that area.

It also increases the burden on the air traffic controllers who have to now avoid that area, as well, in their activities.

PRESIDING MEMBER GEESMAN: Thank you, I think that's been clarified for me.

HEARING OFFICER KRAMER: Before you go on, one question about the FAA letter. When they talk about avoiding flights below 1000 feet, do you understand them to be speaking just in the

vicinity of the power plant, or in the pattern for the airport?

MS. STRATTAN: That would be the vicinity of the power plant, my understanding. It's a very constrained airspace there. You have only up through 1450 feet ATL above ground level in order for the aircraft to maneuver within the Hayward airspace.

Once you get above that you're into the Oakland and San Francisco airspace. And you have the higher up -- they have the jets and so forth that fly through that area in overflight. So it's very constrained as to height and it's constrained as to -- like I said, that area -- that isn't set aside for noise abatement.

HEARING OFFICER KRAMER: Thank you. Go ahead and continue.

MS. STRATTAN: I think we've pretty much covered what I wanted to do. We've talked about the tracks; we've talked about the noise abatement procedures, which do send the aircraft in that area, the helicopters into that particular quadrant.

Although the applicant or the project owner has indicated in their testimony that the

cone is -- that they're not within the cone, the cone is an area of direction which directs it toward the plant, as far as helicopter departure and arrival.

So, basically --

PRESIDING MEMBER GEESMAN: You agree that they're not in the cone?

MS. STRATTAN: They're not in the cone. That's not an operating space, it's a direction. It's a directional indicator. So that when they take off from the helipad they're advised to fly within that cone transiting out of the area.

We also have the problem of the potential for Eastshore, should that be developed. That would further constrain the air space because of the protection that would have to be provided for the plume for that area.

The plants are only 3000 feet apart. If you have a constraint around that air space you have now further limited the area that they can maneuver when they're heading down to the western area. And --

HEARING OFFICER KRAMER: Do you know what -- the Eastshore plume, will it be as intense at altitude as the Russell City plumes? Or are

they smaller or larger?

MS. STRATTAN: The plumes are not as intense. They dissipate at a lower level. They will enter navigable airspace. They will not necessarily enter the traffic pattern altitude, the 600 feet and above. But we would still have to have the avoidance of overflight. And, again, that would restrict the airspace.

HEARING OFFICER KRAMER: And that notice would come from the security issues?

MS. STRATTAN: No. There was a mention earlier of a NOTAM that's already in place for overflight. That was issued by Homeland Security in relationship to 9/11. It does not apply to aviation safety. It has to do with protection of vital infrastructure. And it is a temporary NOTAM that can be revoked at any time, although that's not expected.

However, it is not an aviation safety NOTAM. Our NOTAM would be an addition to any NOTAMs that we issued would be in addition to that. And it would be site-specific. So that it would say something to the effect of direct overflight in the area of such-and-such, and there would be parameters involved.

And that would be required that the air traffic controllers would then have to maintain certain level of distance from those areas. It might affect -- there's a departure paths that might have to be altered slightly, or they would have to be advised that they could not deviate because of the proximity of the plants.

So there are ramifications from that perspective. There's ramifications from the pilots' perspective as far as the available direction and airspace in avoiding the noise abatement, and now avoiding additional obstacles.

And there is the possibility of an inadvertent overflight and an accident.

So, based on what we have found, the potential for cumulative impacts and the possibility that putting this in an industrial use within an airport-influence area could set a precedent for other industrial uses that you have thermal plumes.

We're recommending that the project not be certified for siting at the proposed location or anywhere within the airport-influence area, as it is defined by the most current Alameda County land use compatibility plan.

We haven't been able to find any options to mitigate the loss of the navigable airspace that would result from advisories to avoid the plume. And that we could find no mitigations that would prevent intention or inadvertent overflight of the thermal plume, and any resulting accidents.

HEARING OFFICER KRAMER: To clarify, when you refer to the airport land use plan, do you have the applicant's exhibit 28? It's their July 16 testimony regarding plumes and aviation.

MS. STRATTAN: Can you tell me what question that was in reference to, or answer?

HEARING OFFICER KRAMER: I'm just trying to ask you if the map that I have in my copy of that exhibit is the one you're referring to.

MS. STRATTAN: That map is -- let's see, that map actually is a draft map that not only is not -- has not been approved by the Land Use Commission, but hasn't even been reviewed by the Land Use Commission yet.

I believe that the representative from the Airport Land Use Commission is here; that they had wanted to address the Committee regarding the use of the draft plan, and exactly what the status of that information; along with some of the other

information that was used in the applicant's testimony. So they could be --

HEARING OFFICER KRAMER: Okay, I do have a card from her. So the map you're referring to, where would I find that?

MS. STRATTAN: That map is within the 1986 airport land use policy plan. I believe you have a copy, but it is approximately the same size as the existing plan. It extends out approximately three miles in all directions from the existing runway configuration on the airport.

HEARING OFFICER KRAMER: Was that in the staff assessment?

MS. STRATTAN: Yes.

HEARING OFFICER KRAMER: Okay. I'll take a look for that while somebody else is testifying. I just want to make sure I'm looking at the correct map that you're referring to.

MS. STRATTAN: Actually it's on page 58 of the airport land use policy plan that is the current plan that's in use by the Commission. It's called the -- it lists both the Hayward Air Terminal, which is now Hayward Executive Airport; and the Metropolitan Oakland International Airport general referral area, which is also synonymous

with the hazard protection area.

HEARING OFFICER KRAMER: Okay. I'm not sure it's going to be in evidence unless we do something to get it there, though. Does anybody else have a helpful pointer to that map? I'll sort that out while we continue on.

Does that complete staff's testimony or were other -- Mr. Adams.

MR. ADAMS: Jim Adams. I prepared the traffic and transportation analysis. Shaelyn -- there's an overlap between land use and traffic and transportation -- Shaelyn has covered quite a bit. So I won't -- I think the analysis speaks for itself. I, you know, heard what you had to say.

What I'd like to point out is I think the contentious issues are the plumes, the possible impact on aircraft flying over, the traffic pattern, the restriction on airspace that is now fairly unconstrained, and the idea of -- I really want to tie it to our experience with Blythe.

Because this is what -- and you know, Commissioner, what happened with Blythe. And I'll just really quickly summarize it, and I think

enough will be said.

But at the time we reviewed Blythe we did not know or be able to analyze cooling tower plumes. And so we were unaware that we were actually siting something that was going to be a hazard to aviation operations. It was even more egregious in the sense that it was on the extended runway centerline, so it's different than this issue. But it is similar.

After that we've changed our analysis. We've hired new staff and we've really taken a look at this issue of cooling tower plumes and what can happen to aircraft.

And I think it's our experience at Blythe that really showed us that the type of plumes that came out of Blythe was enough to have adverse impact on aircraft flying overhead.

And we've actually had staff model the plumes that are emitted by Blythe in terms of velocity and compare that to Russell City. And they're very comparable.

So in our view this is sort of the overriding issue. We have the experience of Blythe, where aircraft fly over at 1000 or less, and did experience severe turbulence. We have the

same velocity plume at Russell City. We know we have aircraft flying over it.

And our concern is the same thing is going to be experienced in this case, particular since the vast majority of aircraft based at or using Hayward are single engine aircraft.

So, without, you know, I think the analysis speaks for itself, but I think what really is important here and really hasn't been acknowledged by the applicant, is that the experience in Blythe gives us cause for concern that we'll have a similar situation with Russell City.

And then it becomes, knowing that, can we permit or can we allow an amendment that will put something that will cause hazard to aircraft, just like it did with Blythe, and not recognize that before the fact; and not have a situation where we have to do something else afterwards because we didn't deal with it.

Now, in the Blythe case, all we could do was come up with mitigation, to try to get pilots not to fly over the facility. But it did restrict the airspace.

In this case we knew ahead of time that

we are -- could be introducing -- we think we would be introducing a hazard; and it would have impact on aircraft currently using the airport. It's much more crowded; much more aircraft; much more constrained airspace everywhere except this one quadrant.

And so in our view this is the issue for us. And that we don't think that it's appropriate to introduce a hazard to aviation safety at an existing airport by putting one or maybe two power plants in an area that will have an impact.

Now, it's only 40, 42 aircraft. But this airport could experience increased operations, perhaps some months 60 or 80 aircraft that would go over this site. So in our view, it's a hazard. And we just think that it's inappropriate.

And in terms of the land use issue, it violates the LOR. And so from a traffic and transportation issue that's really, I think, the major point that I need to raise. Like I say, the analysis speaks for itself on the other issues.

And then Shaelyn brought up quite a lot that I would have said, myself.

PRESIDING MEMBER GEESMAN: Well, as you

know, I was assigned to the Blythe II case, so I came into Blythe after Blythe I had been licensed. But I do have familiarity with the aviation issue and the way in which we addressed it in Blythe II. And also the way in which we attempted to correct for any deficiency in the Blythe I decision.

I want to try and compartmentalize, and I heard you mention public safety. And I think we've got an adequate record for us to evaluate the impacts there.

I heard you mention LORS, and I think we've got an adequate record there.

I'm still a little bit perplexed by this restriction on airspace concept. And I'm willing to accept, for the sake of argument, that should be a legitimate concern of the Energy Commission hypothetically.

Are there any bounds to it? I mean are there any definitions as to which airspace is it we're concerned with? Or is it any restriction of airspace should be a concern to this Commission?

MR. ADAMS: I think you could look at it as you're basically putting a hole in the airspace that's unrestricted now. And that hole is however wide, like I say, for the cooling towers, however

much airspace is influenced by the cooling tower plumes, that becomes a hole that can no longer be used by aircraft.

And that's what we mean. It's like you're taking an area now that's unconstrained, that aircraft can go anywhere they want; and then you're putting a facility that will take out a chunk of however many hundred yards or whatever, that will be occupied by the cooling towers and the HRSGs. And that airspace will no longer be safe basically to fly through under certain meteorological conditions, cooler temperatures and calm winds.

So that's what we mean. We're, in effect, taking a part of the airspace away from the pilots and saying, you can't go there now because we're going to build this, and you're going to have to avoid it.

And I think that was the sentiment that was raised -- and perhaps Shaelyn could expand on that -- at the Airport Land Use Commission meeting last night. They were concerned about basically putting a restriction of airspace that they will no longer be able to use for aircraft operations in an area that's now unconstrained.

And that's what we mean, is we need to take a look at that. We're taking airspace away, essentially.

PRESIDING MEMBER GEESMAN: But given the NOTAM on overflight restrictions, that would be the case with any power plant, would it not?

MR. ADAMS: Well, the issue there is in this case it's because of Oakland's airspace being on top of Hayward's airspace, the traffic pattern is 6 to 800 feet. So, in some sense you can't really -- the NOTAM on the --

PRESIDING MEMBER GEESMAN: Homeland Security.

MR. ADAMS: -- Homeland Security issue, you really wouldn't want aircraft flying at 1000 feet over this plant, because it puts it way too close to the Oakland airspace. So that NOTAM no longer -- is not really operable.

If this plant were built then we would want a separate NOTAM. But, in effect, what that would do is that would take that airspace away. It would just say, we've put this here and you can no longer fly over this area.

PRESIDING MEMBER GEESMAN: But is that something we should have been concerned with with

the Pico Plant, or the Potrero Plant? Doesn't that apply in virtually any urban setting?

MR. ADAMS: It would depend on, for example, the Riverside Plant, the traffic pattern was outside of where the plant was located. It was close enough to the airport to not be an issue. No aircraft flew over it. Therefore, it did not come up as an issue.

There are cases where a power plant -- in fact, frankly, we would like to see, at some point, a policy that says to developers, if you're looking at power plant sites, you need to be at least three miles away from an operating airport so that you get out of this airport-influence area and then you don't have any aviation issues because the planes are high enough that they're not going to be affected by the plumes.

So, for us, and this is a particular case, it's a mile and a half away; we have aircraft that fly over it; it's an unconstrained area right now. And we think the plumes would cause adverse impact based on our experience with Blythe. And therefore we think it's a restriction on what is open airspace now, and it's a potential hazard.

PRESIDING MEMBER GEESMAN: But what you'd really like us to do, from a policy standpoint, going forward, would be to observe some three-mile radius around airports?

MR. ADAMS: That is correct. The airport-influence area normally goes out three miles from an airport. And at that point aircraft are at 1500, 2000, 2500 feet. So the interaction with the plume is not the issue.

I would like to see, and would be willing to discuss at the appropriate time, how we can come up with a policy that would tell developers, when you're looking at power plant sites, take a look at where the nearest airport is. And if it's within three miles, then you need to recognize that that site may be a problem in terms of airport interaction.

I think that would help us from getting more and more applications where we have a site a mile away, a mile and a half away. And then we have to make a judgment about how much of a hazard is it; how much of airspace is restricted; how many airplanes are there. All of those factors come into play because we're so close, we're within that airport-influence area. And I don't

think, as a policy matter, we should be doing this continuously.

PRESIDING MEMBER GEESMAN: Now how would you reconcile that recommended policy with the applicant's reading of the earlier FAA study which suggested no documented incidents? I believe their written testimony suggested one or two undocumented incidents over some remarkably large denomination, ten bazillion or something.

MR. ADAMS: Right. And it's my understanding, based on what I've learned recently, that that database is more for commercial aircraft operations, have pilots reported an accident. It's not necessarily based on general aviation experience.

In addition, I did inform one of the authors of that report of our experience at Blythe. And it was not mentioned in that report. I believe I went into pretty good detail about pilots experiencing severe turbulence at 1000 feet, single engine aircraft, blew it up 3, 400 feet. I have the ROCs for those. They were docketed.

So, I was disappointed when I saw the study that basically ignored the information about

Blythe, which was real-time data at an operational airport. And it did point out the potential impact on aircraft from plumes. And he ignored that in that study. So I think that study is flawed in the sense that it did not account for at least the one case I'm aware of. A real-life experience at a power plant that had adverse impact on aircraft.

PRESIDING MEMBER GEESMAN: Thank you.

MS. STRATTAN: May I add something, please. One of the other issues, the same safety study, was actually initiated in response to a lawsuit for a Connecticut plant. And that lawsuit was based on pilot reports of impacts from a plume from a power plant.

The other thing to note is that --

PRESIDING MEMBER GEESMAN: So, is the implication that the FAA has been selective as to which data it relies upon?

MS. STRATTAN: The FAA -- yes, the FAA only used one database. They discarded, and they specifically referenced one where they said it was declared pilot error. Loss of control is often declared pilot error, as a result, after the NTSB accident consideration.

Secondly, they also discarded the intentional flights through the plumes that gave reports of the turbulence involved, declaring it to be basically of no interest to them.

So, they were looking specifically -- and they looked, the pilot reports were for all kinds of flights everywhere. If you have a power plant in the middle of a cornfield somewhere in the middle of Iowa, where the airplanes can easily fly around it, and it has a visible plume and they can see it and they're going to avoid it, those kinds of situations were included, as well as others.

At the time of the study there were very few power plants within the United States that were sited near airports. But has now become a lot more prevalent because industrial areas are often in land use, are often being sited around airports. It's a large area that doesn't have a lot of residential, and therefore seems ideal for industrial uses, is also being used for power plants and other facilities that do emit thermal plumes. And those haven't really been studied in specific area.

The FAA safety study didn't look at any

kind of site-specific. It looked at the generally the United States. So it does raise a question as to how applicable it is to a particular site.

PRESIDING MEMBER GEESMAN: Do you have a reaction to the applicant's aviation expert who said that even doing the arithmetic in your analysis, this constituted light turbulence?

MS. STRATTAN: No, I do not, based on the pilot reports that have been received for those who flew through Blythe, who flew through the facility in Connecticut. Those are the kind of reports that have credence in my mind.

The average that he was talking about for light turbulence, that is not an FAA standard. I believe it may be recognized by the FAA, but it is not an FAA standard. It's from an aviation handbook or textbook, I believe.

MR. ADAMS: Aviation weather.

MS. STRATTAN: Yes, from an aviation weather textbook. So this is, while it's an interesting standard, based on -- a classification, excuse me, --

MR. ADAMS: It's not a standard.

MS. STRATTAN: -- it's not a standard. And it is not -- it doesn't seem to be equivalent

to the reports that we have of actual pilots flying in the area.

MR. ADAMS: Two quick things. One of the reasons why the study was started was actually Terry O'Brien signed a letter to the FAA Administrator regarding the Blythe experience. Perhaps you recall that.

And apparently she thought it was enough of an issue to assign some of her staff to pursue the idea of doing some sort of study analysis. And then combined with this Connecticut issue, it finally got done.

So that's why it was doubly disappointing that the Blythe situation was not discussed in there. Because in some sense it was our letter to the Administrator that got her thinking about this whole issue of power plants and --

PRESIDING MEMBER GEESMAN: I recall it very well, because he sent the letter in my direction. I guess part of trying to connect the dots here, though, is looking at the FAA letter that was sent to you yesterday and their recommended remedy is warning about overflight below 1000 feet.

MR. ADAMS: I agree. And I'm going to have to read that letter more carefully, but they still are not really doing a plume -- they're not really looking at the plumes. They acknowledge that the plumes weren't looked at in the 7460 form. And he's not really saying that they're looking at the plume.

What he's saying is he agrees with staff's analysis; and he also agrees with our trans-10, which we put in with a caveat, as you know. We said we don't support it at this time. But if the Commission does allow the amendment, then we've come up with trans-10 to try to do some mitigation.

But, again, that's sort of mitigating after the fact of introducing a hazard, which we had to do in Blythe, but we don't have to do in Russell City.

So, I think, again the FAA is not taking a good look at how plumes can affect aircraft as they fly over the facility. And that letter doesn't do anything to tell me that they looked at it seriously. It just says we agree with the analysis and we agree with trans-10; case closed. And I don't think that's what we were anticipating

in terms of them having a serious look at plume interaction with aircraft flying below 1000 feet.

PRESIDING MEMBER GEESMAN: If I'm not mistaken, if the Commission, or rather the Committee ends up agreeing with staff on this recommendation, in essence we're making a finding that the FAA is not doing a decent job on public safety.

MR. ADAMS: Commissioner, I would have to say that's correct. Their 7460 form process, they explicitly removed plume behavior as a part of that analysis. That's why we went and sent our analysis out to the FAA to give them another chance to say, okay, look at the plumes, look at what we're saying, what do you think about it.

They basically ducked it again. So, in my view, yes, they're not taking a look at the serious safety issues related to industrial plumes and aircraft, low-flying aircraft, particularly near airports. They're basically -- they're not doing what I would consider to be their professional duty, in my opinion.

PRESIDING MEMBER GEESMAN: Thank you.

HEARING OFFICER KRAMER: Mr. Walters.

MR. WALTERS: I'll be very quick, be

done by 10:30.

I think in terms -- I did the modeling analysis and I think there's essentially, though, just disagree with the modeling analysis, and I want to say why. I believe the applicant thinks there is some disagreement, or that I had disagreed with the analysis done by Katestone, that's not the case. Had they kept their original analysis on the record, then, yes, there would have been some significant disagreement.

However, through the longer --

PRESIDING MEMBER GEESMAN: Isn't there a question as to what are calm wind conditions? You say --

MR. WALTERS: I was very clear --

PRESIDING MEMBER GEESMAN: -- .6, they say .2?

MR. WALTERS: Yeah, let me get to that; it's one of the points I'm going to get to. First, I was not discounting the Katestone analysis. What I was doing was identifying what I could and could not evaluate. I do not have the Katestone model; I did not have the exact input and output files.

In a normal air quality analysis, even a

normal plume analysis, if the applicant does work I get those files; I can re-run it again, myself, if I have any questions; make sure that I'm happy with it. The Katestone model is not available to me to use. TAPM is, but Katestone wasn't.

My point of what I was saying in my report was that the Katestone wasn't. I wasn't really talking about TAPM. And so I was just basically identifying my limitations in being able to review the Katestone report.

Therefore the Katestone report, in terms of its analysis of vertical plume velocity speeds, when there is wind, essentially has to stand on its own. I don't have the ability to do additional analysis. With the revisions that they did beyond the draft report, with the addendum and other corrections that have been worked out, I feel fairly satisfied that most of the methodology looks pretty good.

But, again, I do have limitations of not actually being able to see the input/output files, not having the model, itself. So that was my limitation or my identification in my report in terms of the Katestone model.

I also wanted to identify that the

Katestone model is not the only method. And that was another thing I brought up. There are other methods, as well as other methods of dealing with multiple stacks. Some maybe more conservative. I was just identifying that there are other methods to be complete, that Katestone isn't the only method that's used. There have been others that are available on the record for other Australia -- generally Australian sites that have been evaluated.

Now, in terms of what I was able to do, again I was limited by the information I had. And most of that information for most of the life of the project was the Best paper, which, at least my mathematical abilities, limited me to only be able to do the calm wind scenario. So that's where I left.

In terms of the multiple stack method, yes, I did not use the same method that Katestone did. But I didn't have appendix D in time to integrate it. I did use the method that was identified in the Best paper, the .25.

And using those methods for the calm winds we came up with very similar, if not identical in many cases, results. Some of the

differences in the results may have been slight differences in inputs, particularly in terms of the ambient and for the cooling tower, there were probably some slight differences in how we integrated the ambient and the exact parameters for the cooling tower.

So, I was able to actually match things up. I didn't really have a problem. So, in terms of their Q9, A9, Q10, A10, I don't really think there are any issues there.

You know, it did identify, or at least in item 2; item 3 and 4 they were identifying that I, perhaps, misinterpreted or was leading on the Commission, per se, in terms of calm wind versus non calm wind and wind speed.

But I was very clear in the report what calm was, zero wind speed. Just below that I identified that the plume velocities would drop quickly with wind speed. And, again, I was clear in my summary of what I was trying to state was, as the temperature goes down, as the wind speeds go down, the plume velocities will go up.

I was not saying it was calm; I was not saying it was going to be as bad as the calm wind predictions were. In fact, you could use the

probability analysis using their wind analysis of 4.3.

But another issue that I think does have to be brought up in terms of calm is when you have a low wind speed, 1 meter per second, or less, for periods of time during that hour, because this is an average wind speed, you will have a near calm or a calm period for seconds, even minutes.

The plume, getting up into that navigable airspace, takes 15 seconds, no more than half a minute for the cooling tower plume. So all you need is a calm period of that length to start having plumes have high velocities.

So, average wind speed analysis does have a flaw because you are not addressing the true probability or true frequency of when it's actually dead calm.

PRESIDING MEMBER GEESMAN: And what's the temperature variable?

MR. WALTERS: The temperature variable is basically the difference in temperature, whether it's the cooling tower, primarily the cooling tower, and to some degree gas turbine HRSG, as temperature goes down the temperature difference is greater, therefore the buoyancy

factor is more.

PRESIDING MEMBER GEESMAN: What about ambient temperature? What influence does that have?

MR. WALTERS: That's what I'm talking about, the ambient temperature. As the ambient temperature goes lower, the stack temperature is about the same for the gas turbine HRSGs, so there's some increase in that differential in temperature. So some increase in that buoyancy for the cooling tower, because cooling towers operate in a different fashion where their temperature difference really goes up as the temperature goes down, as relative humidity goes up.

PRESIDING MEMBER GEESMAN: What temperature range do we need to be concerned with?

MR. WALTERS: Probably 60 degrees and lower.

PRESIDING MEMBER GEESMAN: Sixty?

MR. WALTERS: Yeah. Which is about 60 percent of the time. It's not particularly warm in this area.

PRESIDING MEMBER GEESMAN: I think there was one indication that it was -- I believe that

the reference was to 38 degrees.

MR. WALTERS: Yeah, that's the worst case. And we also modeled a more average case where I think one was at 68, one was at 59, based on the availability of the input parameters for both cooling tower and the gas turbine HRSG.

PRESIDING MEMBER GEESMAN: Thanks.

HEARING OFFICER KRAMER: Mr. Knight, did you have anything to add?

MR. KNIGHT: No, I would prefer to (inaudible).

HEARING OFFICER KRAMER: Okay. We have an intervenor's witness?

MS. FORD: Good evening, Commissioners. Do you want me to start, or do you want him to ask me questions?

MR. HAAVIK: You can just make your presentation, that's fine. Just introduce and give some of your qualifications and go from there.

DIRECT TESTIMONY

MS. FORD: I'm Carol Ford. And in addition to the other things I mentioned before, I also have Ford Aviation Consultants. And I do consulting for various airports around the state

and in Nevada, and sometimes other states.

One of the things that I wanted to mention that has been brought up here, I do support the staff's recommendations.

And the discussion that you had which was about the FAA and their discussion that they don't do land use, they have grant assurances. And those grant assurances, the City of Hayward signs when they accept money for grants. And they're from the FAA. So, there's a grant from the FAA.

And two of the grant assurances are relative in this discussion. One is grant assurance number 20, hazard removal and mitigation. It will take, it being the City, the sponsor, will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport, including established minimum flight attitudes -- altitudes will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting, or otherwise mitigating existing airport hazards. And by preventing the establishment or creation of future airport hazards.

And grant assurance 21 is compatible land use. Because the FAA doesn't have the jurisdiction, but the City does. It, the City, will take appropriate action to the extent reasonable including the adoption of zoning laws to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations including landing and takeoff of aircraft.

So, the airspace around the Bay Area is one of the most complicated in the world. Class Bravo, B, airspace, that's San Francisco, and class C airspace is Oakland airspace, and squished underneath that is class D airspace, which is Hayward and in San Carlos.

And I think -- I don't know that 40 aircraft a month is completely accurate, because planes that go from San Carlos over to Hayward or go in that direction would be apt to fly over this location. I think this is not a smart move to put this here.

And the AOPA, the Aircraft Owners and Pilots Association, has written a letter which specifically mentions the experience of local

pilots or of pilots who flew near Blythe Airport, which is what Mr. Adams was talking about, that's the same issue here.

And they also talk about APOA's committed to insuring that future viability and economic development of general aviation airports and their facilities as part of the state and national transportation system. Any development that threatens the safety of aircraft operating near airports can be considered a threat to the viability of a local airport and the national transportation system. And I think that's true in this case.

The normal traffic patterns, for instance, over at San Carlos Airport, it's 800 feet. I think this traffic pattern is lower than normal. Many of them are at 1000 feet or close to 1000. And San Carlos is lower than 1000, at 800, because we are also -- we, that's San Carlos Airport, -- are constrained because of the squishing down effect of the other airspaces that are on top of us. And so we must operate at that lower altitude. And that is even lower here at Hayward where it's 650 feet.

A couple of days ago I had a friend of

mine who keeps a plane here at Hayward Airport, and she and I plan to have an outing to go to lunch, to fly someplace to lunch. We were going to fly to Monterey.

And so we decided to tour this area first. And when we -- we did several traffic patterns around this area. She's completely familiar with it, so I didn't have to pay attention to that because I'm not as familiar. So I could be the observer, observing what was happening.

And I was watching us fly between these two prospective sites, the Russell City one and the -- I forget the name of the other one closer -- Eastshore. And we ended up in the middle between them, or over one and close to the other, on these three patterns that we did in this area.

And we were also in a Cessna 172. And this just seemed absurd to be trying to limit this airspace when we're already limited by a huge mix of aircraft. We can have blimps and fabric-made fabric aircraft, as well as 172s and Pipers and all the other kind, plus business aircraft, Cessna Citation jets that would come into Hayward, as

well as the commercial jets that are going not that far away into Oakland.

So, it's just a big conglomeration, a central focal point where all these things can happen at once, not to mention the special operations that are required for helicopters.

So, into this enormous mix in a compressed airspace you're going to put these obstacles that we have to go around or through or avoid. And it just makes it that much more difficult.

So I really respectfully request that you not do that.

And usually power plants are in rural areas. And as your staff also mentioned, this is an increasing issue among pilots to have this type of industrial use so close to an airport making it that much more difficult.

As also was mentioned, this is a high wind area. You have to be aware of wind which cause planes to drift. So that's another issue.

And also patterns aren't flow dot, dot, dot on a certain line or on a rail or on a track. They can vary. They're not exactly flown exactly as these papers indicate. There's a variation

because of the type of plane you're flying, whether it's high performance or low.

And then you also have the mix of pilots. You have the professional pilots for the business aircraft that are coming in; you have student pilots; you have low ton pilots; you have high ton pilots in different types of performance airplanes. And you're having all this mix with oh, don't fly over there, and watch out for those obstacles over there. I just hope you don't make it that much more difficult.

(Pause.)

MS. FORD: I think I've covered all my points. But I would like to know if you're going to hold the record open, because there was a couple of more letters that I expected to come in for this, and I haven't received them yet.

HEARING OFFICER KRAMER: We'll decide that a little later. Who would they be from? From agencies or --

MS. FORD: One is from the California Pilots Association, and that some other pilots were commenting.

HEARING OFFICER KRAMER: Okay. Those would be more on the order of public comments, so

you --

MS. FORD: Okay.

HEARING OFFICER KRAMER: -- can submit that whenever they come in, regardless of what we do with the record.

MS. FORD: Thank you very much.

HEARING OFFICER KRAMER: Okay. Now is the time for the -- this is an informal setting at the request of the parties -- and now is the time for the various parties to ask questions of each other.

Mr. Ratliff, since the applicant went first, I think you should have the first opportunity to ask questions.

MR. RATLIFF: I would prefer to allow my witnesses to ask questions; but I would like to ask Ms. Ford, I mean we heard an earlier discussion about the ability of a plume to cause loss of control of an aircraft.

In your view is 4.3 meters per second a hazard to a typical pilot?

MS. FORD: Well, I haven't flown over a plume personally; and I don't think that I'm qualified to discuss how high, you know, how much speed that is. I'm not an engineer, and I'm not a

scientist.

But from the experience of Blythe, I think this is not a good idea. Any kind of plume, an updraft, causes a light plane to deviate from its flight path.

So, I mean, if you fly over on a very hot day, if you fly over an asphalt road you can get an updraft if you're low to the ground. Which you would be if you're coming into an airport to land, or if you're taking off. You're lower than normal.

MR. RATLIFF: Thank you.

HEARING OFFICER KRAMER: Do any of the staff have questions for any of the applicant's witnesses or Ms. Ford?

MR. KNIGHT: Not at this time.

HEARING OFFICER KRAMER: Mr. Wheatland, did you have some?

MR. WHEATLAND: Two things, and very briefly. First of all, would you like to hear from the City with respect to the interpretation of their ordinance? Is that --

HEARING OFFICER KRAMER: I think we'll get to that, and also, we will get to the representative from the Airport Land Use

Commission.

MR. WHEATLAND: All right. I have a question actually I'd like to direct to our witnesses. There was -- Mr. Adams spoke about the FAA's proposed restrictions creating a hole in unrestricted airspace. And he stated that aircraft can go anywhere they want now within that area. He also suggested that you don't want the aircraft to fly at 1000 feet.

I'd like to ask Mr. Graves if he could please address those points, both in terms of what is happening in that airspace now, and where are pilots instructed to be flying now with respect to that airspace.

MR. GRAVES: Okay, as far as creating a hole, that would be anytime you place a restriction on flight, that, in fact, does present a hole, if you want to call it that.

One thing I've wondered about is at what point does the Commission decide that they will get into the business of airspace management that's clearly under the purview of the FAA. And then where do you stop, you know.

I think your concern is rightly focused on aircraft safety and whether a hazard exists to

aircraft safety. I think in the discussion of your staff they continue to use the word, you know, aircraft will fly over this hazard as if the conclusion already is that that site is, in fact, declared a hazard, when, in fact, the FAA has declared that it is not.

So, if you look at the testimony of 11 FAA experts -- in fact, I'd like to correct an error, twice now your staff have said that this study dealing with accidents over 30 years did not pertain to general aviation. They said it only pertained to commercial aviation.

The record you have, and you have that study, and on page 9 the data clearly says that it was restricted to general aviation aircraft. So I'd like to correct the record that it is not commercial aircraft, in fact it is general aviation aircraft that were studied. That's 30 years of data.

And then they say, well, the possibility exists there would be an accident. That's an argument that cannot be opposed, because there's always the possibility to exist, however small.

So I think what you have to determine is if the -- it's not the possibility it exists, but

what the probability is what's important. And if you conclude that the, you know, the creation or licensing of a power plant is denied on the basis of a one-in-a-billion probability that there may be even some input to an aircraft that could cause it to be, you know, disrupted from a flight pattern, then I think you'd have a difficult time justifying that on the basis of the FAA study. And, in fact, on other aviation experts.

I don't presume to have the knowledge and expertise of all those aviation experts, but I do know, you know, that's their job, that's their mission. In fact, they have determined there is no hazard. So I think you should be careful if your staff continues to use the word, we can't site that plant or create another hazard, when, in fact, the determination that a hazard exists has not been conclusive yet at all.

And I'm sorry about the hole, you know, talking about airspace. You know, that's an airspace management issue. An aircraft flying under visual flight rules in the Hayward airspace does have the ability, with tower permission, remember it's a radio communication with the tower, they have the authority to fly in the

airspace that's open to them. And to avoid other restricted airspace and obstacles.

In congested airspace there's altitude and lateral separations; in uncongested airspace there's altitude and lateral separations.

And remember, even though, you know, indicate that there is traffic arriving and departing, the aircraft that they've mentioned, they said, but there's a lot of training going on. I talked to the tower today. They said their training areas are to the north and the east. And they do not do training in the southwest area.

They mentioned it's a hazard, that RCEC plants a hazard to aircraft takeoff and landing. Well, aircraft in takeoff and landing configurations will be in close proximity to the runways, far removed from the proposed site. There's no reason for an aircraft to be in a landing configuration over or near the area where that plant is supposed to be.

And if they were doing practicing slow flight, where the aircraft would be configured in landing for training, they would be on the other side of the airport.

So, altitudes, they said, you know,

they're required to fly at 1000 feet. Who designs the airspace? It's the FAA. It is congested, but they have experts in airspace planning. I think their experience is probably validated over 50 years. And they chart airspace to account for deviations of aircraft, aircraft approaches. And I agree with you, you know, it's not -- I wish I could see that my needles were frozen. I've never observed that, myself, on an approach. It would be nice to say, geez, these must be stuck.

But, you know, they allow for that. They allow for deviation when they set traffic zones and traffic hazards and lateral displacements and vertical displacements from authorized approaches. They have variations allowing for that. So it's not exact.

But when they design airspace they design airspace to allow for sufficient lateral and vertical separations of all aircraft in that airspace, as well as airspace in the adjoining airspace.

And one of the things you have to remember, regardless of whether you call all the classifications of turbulence are classifications or standards or, you know, findings, or estimates,

the fact remains that we're not talking about Blythe here. And to you, say, well, we've got reports from people at Blythe, it has not bearing on this plant that we're talking about right now.

We're talking about the RCEC plant; and we're talking about a plume velocity that averages at 14 feet per second. That is 840 feet per minute. That's science; that's math. You know, you can agree or disagree with whether that's a hazard or not, but if you can calculate, you know, sixth grade math to meet rules. And the fact is that 840-foot-per-minute encounter is in the light turbulence category.

And I'd like to ask Carol, rather than ask her if she's ever flown through a plume, I would ask her if she felt comfortable flying an aircraft in light turbulence.

MS. FORD: It depends.

MR. GRAVES: Depends, okay. Perfect answer. But aircraft are designed for, pilots are trained for, even pilots at the very lowest level of experience have to demonstrate a capability to fly in light turbulence.

MR. WHEATLAND: Thank you very much.

MR. ADAMS: Could I respond? Could I

respond?

HEARING OFFICER KRAMER: Sure.

MR. ADAMS: First of all, the reason Blythe, you know, is important is because one, we have similar velocities at Blythe that would be expected at Russell City.

Also, that 4.3 meters per second is an average velocity. The velocity in the center of the plume would be greater than 4.3. So you have to understand that it's an average velocity. But in the center of a plume it would be higher than that.

The reason I think those figures, the velocities, are valid is because of the experience that we have at Blythe. I mean when an aircraft at 1000 feet, single engine aircraft, experiences severe turbulence flying over the cooling towers, and we know what the velocity is, I cannot but conclude that that is a relevant velocity. That velocity is having an impact.

Also, in terms of the expertise or the experience of pilots, one of the pilots that flew over there was in a Lear Jet had hundreds, thousands of hours, and trained pilot, and even he had to struggle to maintain control of the

airplane. And he was at 550, 600 feet.

So, I think Blythe is absolutely relevant here. It's the real world experience that we have that raises our concern level when we have to consider possible impact of the power plant near an airport. And so I think it's absolutely relevant.

And I've already talked about the flaws in my view of the FAA study. Now it may be that there was a general aviation database, and Shaelyn can go into this in a little bit more detail, but I do believe that the study did not deal with the real-life situation of Blythe, even though the authors knew about it.

So I'm not going to hang my hat on this study that looks at a database and really doesn't have any real-world experience about a specific power plant and an airplane relevant to what we had at Blythe.

So I just want to respond to that. And that's why staff, I think, has a legitimate concern. And Blythe is absolutely the thing that really focused our attention on cooling tower plumes and the effects on aircraft.

MS. STRATTAN: If I might add one more

point. He indicated that the -- indicated that the safety analysis indicated there was no hazard. And, in fact, on page 7 of the report it says the risk analysis team identified the following hazards. Talk about high -- temperature or velocity from industrial facilities, power plant exhaust plumes may cause air disturbances that would have the potential to cause airplane damage and/or negatively affect the stability of aircraft in flight.

They identified a second hazard as a result of correspondence from citizens that plumes -- they talked about restricted visibilities. This is not a case for us now, but they did identify it as a hazard.

What they then did was take the hazard and determine the potential for risk based on one database that the database, itself, for reports was general use by commercial, rather than individual pilots. Which may reflect why there were no pilot reports indicated in that from such as Blythe.

The actual statistics for accidents and incidents did relate to general aviation. So there was a division there in the information that

was received and analyzed.

HEARING OFFICER KRAMER: Mr. Davy.

DR. DAVY: I'd just like to ask Mr. Adams if he's aware of any questioning of the veracity of the Blythe pilot reports.

MR. ADAMS: What happened was we, as you recall, Commissioner, we got reports from pilots that had experienced turbulence. I contacted about a half a dozen of them; and I did report some conversations for all of them.

And they just told me exactly what happened. They were flying one morning, they were in this aircraft, they were doing this speed, they encountered this moderate to severe turbulence. So I recorded it. And I still have kept them through these years. In fact, once pilot sent me an email to back up what he told me over the phone.

So I have no reason to suspect that they were exaggerating or anything. They were concerned. They were surprised. The one pilot experienced turbulence at 1000 feet; decided he was never going to fly over that power plant again. And he advised his fellow pilots to do likewise.

So, I believe those are adequate representations of what they experienced. And they allowed us to move forward and realize that we have to understand how cooling towers are behaving and why they're generating these velocities, and what it can do to aircraft even with experienced pilots. So I do consider them valid and relevant.

DR. DAVY: Can I ask them why the FAA didn't consider these reports in their study, and ultimately in their safety analysis report.

MR. ADAMS: Yes, that's troubling. We contacted them. We told them about it. I might even have sent them copies of the reports of conversation. And they basically essentially ignored it and did not include it in their safety analysis.

And they refused to acknowledge it in the 7460 form process. And they did not address it in the letter that we got yesterday from the FAA.

So, in my view, they ignored a prime example of turbulence from a power plant's features having adverse aviation safety impacts. That's why I was disappointed that it wasn't

included in the safety analysis. And that they refused to take a look at it, specifically related to Russell City. And I think that's an error on their part.

HEARING OFFICER KRAMER: Doesn't sound as if you've received any kind of explanation from them for why they did do that.

MR. ADAMS: No, the only explanation I've received is that the person who reviewed the 7460 form called back to Washington and was instructed that plumes were not to be discussed in terms of determining, you know, a navigation hazard from a facility. Only the physical structures, themselves, the height of the cooling towers or the HRSGs.

So they were limited in what they could address in the 7460 process. And they refused or have not, to date, responded to our request for comments on our study which showed that plumes, in our view, would cause an adverse safety impact. They have not addressed that issue directly to this day.

HEARING OFFICER KRAMER: Ms. Strattan.

MS. STRATTAN: I spoke with the primary author of the safety report, Gary Powell,

regarding this issue. And he basically told us that the only pilot reports that they looked at were those that were within the single database that they did the search procedure on.

So, unless it was in that database, whether it was a pilot report to an airport, to a fixed base operator, to us at the Energy Commission, to, you know, their flight instructor, anyone else, those reports were not considered.

MR. ADAMS: One additional point. The Commissioner will recognize that we had great difficulty in getting the FAA to participate with us, once we knew we had a problem with Blythe. It was months before they would even admit that what we were saying was something that needed to be considered. And it was very difficult to get them to participate in our process and be helpful. They just did not seem to want to address the issue.

And that's one of the reasons why it took us two to three years to work through all the mitigation that we needed to work through, NOTAMs and sectional chart changes and all of these things that we did after the fact.

So, I was again disappointed in the

ability of the FAA to take this issue seriously and work with us to try to understand what is going on and be aware of it. And yet, once again, the plumes were not considered in the Russell City project.

So, again it's not addressing an issue that's absolutely relevant.

HEARING OFFICER KRAMER: Mr. Wheatland.

MR. WHEATLAND: I'd just like to ask the panel a general question, and our witnesses can address it. But is the reason why the FAA, as you say, didn't take this issue seriously is that none of the pilots who reported to you they experienced this turbulence, none of them actually reported that information, themselves, to the FAA by filing an incident or accident report, as they would be required to do if, in fact, that actually happened?

MR. ADAMS: Yes. What happened was they felt that by notifying us and telling us, we said we would share the information with the FAA and bring the FAA in on the process. And they thought that was adequate.

MR. WHEATLAND: Thank you.

HEARING OFFICER KRAMER: Ms. Strattan.

MS. STRATTAN: One more comment. Regarding the FAA's involvement in the safety analysis risk assessment we've been talking about, they actually, as part of their recommendations from this report, indicated that they recommended that the FAA amend the 7460 process to consider a plume-generating facility as a hazard to navigation when expected flight paths pass less than 1000 feet above the top of the object.

They have not acted on that. In fact, they haven't acted on any of the recommendations. And our contacts with the FAA has not indicated when, if ever, they are going to act on the recommendations.

HEARING OFFICER KRAMER: Now, is that report in your list of references as FAA(B) that you're talking about?

MR. WHEATLAND: The FAA report?

HEARING OFFICER KRAMER: Yes.

MR. WHEATLAND: That report is an exhibit in this proceeding. It is an attachment to one of the applicant's data responses to the Commission Staff.

We originally requested this report from the staff, and the staff declined to provide it to

us. So we obtained it directly from the FAA and then provided it to the staff in the form of a data response.

MS. STRATTAN: The FAA had advised us that it was still a draft and could not be released without their authorization. This is why it was necessary for the applicant to go to them directly.

MR. WHEATLAND: When, in fact, it was dated and authorized for public release in early 2006.

HEARING OFFICER KRAMER: Okay, well, my intent in asking the question was to get it in --

MS. STRATTAN: Yes, yes, --

HEARING OFFICER KRAMER: -- to make sure it was --

MS. STRATTAN: -- that is the reference, FAA(B) as in boy in the land use section, at least.

MR. ADAMS: It's also in the transportation and my reference is Federal Aviation Administration 2006 (B) safety risk analysis of aircraft overflight of industrial exhaust plumes. It's the same report.

And we cited it in the text. And then

we put it as a reference. We have a hard copy, of course, and as you mentioned, was an exhibit. So it is a part of the record as far as I can tell.

HEARING OFFICER KRAMER: Okay. Any other -- a couple, Mr. Davy and then --

DR. DAVY: Just a comment. And again I'd like to make a correction to the record. Mr. Adams said that the power plant that's owned by the City of Riverside that's located 3000 feet from the end of the Riverside cross-runway; it's not directly in line with the runway centerline, but it's not very far off.

Mr. Adams represented that that's not in a traffic pattern. I would be happy to show you, Jim, it's in the Riverside County -- or Municipal Airport/Helicopter Guide. And there is a graphic, a map there that shows both the helicopter pattern and the fixed wing pattern flying directly over the Riverside power plant site.

MR. ADAMS: I did not work on that project, so I did talk to one of our staff who did do the traffic and transportation. And he's the one that advised me that it was not an issue because there were no aircraft or helicopters flying over the power plant site.

So, I took him at his word. You could look up his traffic and transportation analysis for the Riverside SPPE, and based on what he told me, that's my belief at this time.

DR. DAVY: And also for the record I would like to say that I contacted the operator of the Riverside Airport. Didn't have a written record of conversation. He informed me that he had not had a complaint from an aviator from the power plant. At that time the power plant was relatively new.

HEARING OFFICER KRAMER: Okay. More -- oh, I'm sorry.

MS. KILLIP: I just thought I should explain maybe; we've gone through a similar process in Australia where plumes, vertical velocities and plume safety weren't looked at until about the mid '90s when we had an open cycle gas turbine, which is one that generates significant vertical velocities, not like this project. A simple cycle, sorry.

And the same process went through; suddenly they realized that there was an issue for, there could be an issue around vertical plume velocities. For this reason, they didn't --

circular, which looked at how you should address the issue and how to define where the hazards are.

If you apply their method properly rather than looking at just the calm wind scenario, the hazards for this facility would only be around 640 or 650 feet, which I think is well lower than the 1000 feet that they're talking about flying.

So, I mean defining the actual size of the hazard is important, as well.

HEARING OFFICER KRAMER: Thank you.

MR. ADAMS: I would just add that the traffic pattern, normal traffic pattern is 600 to 800 feet, although helicopters go lower. And the tracks that we got from April of 2007 show that aircraft were somewhere between 497 feet above ground level, and just under 1000 feet ground level.

So a plume that was, you know, affecting basically the airspace at 650 feet would be within the existing traffic pattern -- the normal traffic pattern.

MS. KILLIP: That's two hours a year up to that level.

HEARING OFFICER KRAMER: Mr. Davy, and

then I think we'll -- I think we're getting to the point where we're just getting punchy, maybe.

(Laughter.)

DR. DAVY: Regarding the study that the City did, that identified 40 flights over the project area, I agree with Ms. Ford that there are probably more flights over the Russell City site, because the study that the City did of the data that the City collected was only for four aircraft flights that were below 1000 feet.

But I'd also like to point out that the traffic pattern diagrams that the City provided to us that did show type of aircraft and the elevation, of the 13 track diagrams that they showed us, the majority of them were for flights that were over 800 feet.

HEARING OFFICER KRAMER: Okay.

DR. DAVY: There were a couple of helicopter flights that were lower. And the traffic pattern very clearly showed them flying through a certain area, and circling over that area. I don't know whether that would be a police helicopter or a traffic helicopter or something of that nature.

HEARING OFFICER KRAMER: Okay, thank

you.

MR. HAAVIK: Mr. Kramer.

HEARING OFFICER KRAMER: Go ahead.

MR. HAAVIK: I have a question of Ms. Strattan. I believe you indicated that, as well as a couple of the witnesses, that under air traffic tower conditions or control, is Hayward controlled at all times with the tower there? Or is it a full-time tower?

MS. STRATTAN: No, it is not. It only operates from 7:00 in the morning until 9:00 at night. And the rest of the time it's an uncontrolled airspace.

MR. HAAVIK: So, between 9:00 in the evening and 7:00 a.m. in the morning. Then how would the aircraft be controlled as was testified by Mr. Graves?

MS. STRATTAN: The aircraft would be controlled by the pilot following FAA regulations depending on the type of arrivals they're doing. Whether they're coming in under IFR or BFR rules. And so it would be, the pilots would have to talk to one another. If necessary, they would talk to the fixed base operator. They could talk with flight service. Or they could, in some cases,

they might be talking to the (inaudible) or one of the other air traffic control facilities in the area for information.

MR. HAAVIK: Thank you.

HEARING OFFICER KRAMER: Okay. Now let's introduce a new panelist who's been referred to thus far. And that's Cindy Horvath, Senior Planner with the Alameda County Airport Land Use Commission.

Feel free to address anything that you heard just now that you want to respond to.

DIRECT TESTIMONY

MS. HORVATH: Good evening. My name is Cindy Horvath, and I'll spell that for you. It's H-o-r-v-, as in Vickie, -a-t-h. I'm the Senior Transportation Planner for Alameda County Community Development Agency. And one of the hats I wear is staff to the Airport Land Use Commission, the Alameda County Land Use Commission.

Just briefly, airport land use commissions were created by the State Legislature; and they are mandated by state law for primarily two tasks. First of all, they're advisory. They have no regulatory authority whatsoever. But they

are consulted in airport land use issues when projects are proposed.

Essentially they're mandated to evaluate proposed new land uses within the vicinity of the airport-influence area, or the AIA that's been discussed extensively tonight, for the potential hazard to air navigation which could then result in a potential hazard on the ground. So we look at public safety in terms of potential hazards to air navigation.

We also look at potential encroachment on airport operations from what are termed incompatible land uses. And that's specific to each project and to each airport. So that's kind of the framework that we operate under.

The Alameda County Airport Land Use Commission did meet yesterday to consider the Russell City Energy Center project, because it does fall within the AIA for the Hayward Executive Airport.

While the Commission did not make a determination or offer an opinion on this project at that time, they voiced a number of concerns about the proposed facility relative to the possible effects thermal plumes could have on

aircraft operations for both the Hayward and the Oakland Airports.

They moved to continue this item to the next ALUC meeting and asked staff to provide more information, including -- there was a number of things. One was an answer to the local FAA's Office request to the City of Hayward to provide more information on thermal plumes as part of their 7460 evaluation.

They also asked me to obtain any information on any available technology that could mitigate the impacts of thermal plumes on aircraft.

They were interested in obtaining additional information on the Blythe Energy Facility projects and the CEC evaluation of them.

And any additional reports or information on thermal plumes and their impact -- potential impacts on aviation, in addition to what staff has already provided them.

Now, I spoke briefly after yesterday's meeting with both CEC Staff and consultant staff for Calpine Corporation, and asked them each to provide me with any known sources of information in addition to what they have already provided

that I can give my Commission in an effort to provide them information to make the best decision that they can based on our mandate.

I'd like to briefly comment on a document that was submitted to your Commission earlier this week by the consultant for the Calpine Corporation. And that document was titled, testimony regarding thermal plumes and aviation, amendment petition number 1 for the Russell City Energy Center.

I'd like to note for the record that attachment 6, which is titled, AIA with compatibility factors for the Hayward Airport, and attachment 7 to that report, which included table 2-2, or a portion of table 2-2, were both taken from our draft policy plan update that is currently underway.

Our current plan, though we are operating from, was done in 1986 and we're way overdue for an update. And we're in the middle of that update now.

So I want to stress that that's a draft document; it's subject to change. Parts of it probably will change before we're finished. And, in fact, a portion of the attachment 6 has not

been reviewed by the Airport Land Use Commission yet. It was inadvertently released as part of the information sharing relative to this project.

So the Commission is scheduled to meet next on August 15th. However, I understand that your Commission is going to be making some sort of a determination prior to that. In an effort to expedite a determination from the Airport Land Use Commission on this project, I will request that our Chair convene a special meeting sooner than August 15th, provided that I can assemble all the above information in the next week or so. And also based on the availability of my Commissioners to meet, given that it's summer and everyone's on vacation.

So I would end by I would respectfully request that the CEC postpone a decision on that Russell City Energy Center amendment until the Airport Land Use Commission has made a determination on this project.

I'd be happy to answer any questions.

MR. RATLIFF: So your Commission can meet on ten days notice, is that correct?

MS. HORVATH: I believe we can meet, under the Brown Act laws, on a 24-hour notice.

MR. RATLIFF: Oh, really? An emergency meeting, though?

MS. HORVATH: Right.

MR. RATLIFF: Yes. And you could do that for this if you chose to then, as an emergency?

MS. HORVATH: We could.

MR. RATLIFF: Okay. And are you thinking in terms of trying to accomplish that so that you could get some kind of decision that you could relay to this body --

MS. HORVATH: Yes.

MR. RATLIFF: -- the Energy Commission?

MS. HORVATH: Yes, that's correct.

MR. RATLIFF: Thank you.

MS. HORVATH: All right, thank you for your time.

HEARING OFFICER KRAMER: Thank you.

Okay, now we're to the point of -- well, before we go to public comment I had one land use question for staff that's unrelated to aviation.

If you look at condition land-1, in the second paragraph it speaks of a ministerial review of the project by the City. What do you mean by ministerial?

MS. STRATTAN: Since the Commission has the exclusive permitting right, any review by the City would be considered ministerial since they're unable to actually take action in a jurisdictional manner.

HEARING OFFICER KRAMER: Okay, I think quite often we've used the term advisory there for that.

MS. STRATTAN: All right, I'll be certainly glad to change that.

HEARING OFFICER KRAMER: Is that -- that's what you meant, in any case. Thank you.

Any additional questions? Oh, that's right, Mr. Wheatland wanted to speak to the City.

MR. WHEATLAND: Just if you feel it's -- if you'd like to hear from the City.

HEARING OFFICER KRAMER: We have the letters which is enough for us.

Public comments, then. This is the time for those on these two topics. Ms. LePell, did you want to add anything?

MS. LePELL: Oh, yes. Can I just ask you, I put in my card for land use, transportation, is that correct, is that what you're asking?

HEARING OFFICER KRAMER: Right, both of those.

PRESIDING MEMBER GEESMAN: Before the panel dissipates, too, I want to thank you all. I think that was a very helpful discussion.

ASSOCIATE MEMBER BYRON: I agree. I was looking for the opportunity to do that, as well. I was concerned we might not have the expertise we were going to need to address some of the issues here this evening. And we certainly did. And I'd like to thank both the staff and the applicant and our intervenor's expert. A lot of good information added to the record this evening. Thank you.

MR. WILSON: Would it be possible for me to go first to address aviation, as opposed to --

HEARING OFFICER KRAMER: Sure, if you want.

MR. WILSON: Okay.

HEARING OFFICER KRAMER: This is the point, though, for somebody who wants to talk about aviation issues and anything else, whether it be land use and traffic.

MR. WILSON: First of all I have to compliment everybody here that's put their input.

PRESIDING MEMBER GEESMAN: You need to introduce yourself again.

MR. WILSON: My name is Andy Wilson. I'm a private pilot and instrument rated. And typically I fly a P210.

I just wanted to clarify a couple of issues. The latest one was talking about they saw the data tracks and why were people circling out there. That's extra space. Hayward Airport is a big maintenance airport, so when you take off you don't necessarily want to go out to Stockton. You stay in the vicinity of the airport.

At the workshop I asked the question could you tell from the data tracks what air traffic was over there. Was it a pilot transiting to someplace? Was it a maintenance pilot, or a pilot testing an aircraft. So this is the extra space that people are kind of avoiding.

You look at the data tracks, you look at the lines around the airport, and you see those as flights to go to avoid housing, so you don't get fined, noise abatement, those kinds of things. But the airspace, also, why would somebody do a 360. Well, they do a 360 because it helps with the various air traffic at Hayward for spacing.

So you need space to keep aircraft spaced apart. So you have the Lear Jets, you have jets, you have biplanes, blimps coming in. So you need extra space. So, I just wanted to clarify that.

The other is a dirty aircraft, or an aircraft that if you have, your landing up, you put it down. When you get into close proximity to the airport you put your flaps down. Typical practice in general aviation and for Hayward is when you're five miles out, or prior to five miles, maybe six, maybe near the five, you have to pick up the ADIS or the weather data at the airport.

Once you're at the five-mile mark than what you do is you start putting landing gear down, slowing the aircraft down, putting the landing gear down and putting your flaps down. So, you're at the five-mile mark or four-and-a-half-mile mark or four-mile mark when you have the dirty aircraft. And I just wanted to point that out. It was said nobody would have their flaps down, nobody would have their landing gear down within two or three miles of the airport. That's incorrect.

On the data track when they're talking about patterns, everyone's looking at the airport and they see a circular area is the landing zone. But as you depart to a left, and you come out above the traffic pattern, you fly along the preferred route, the published route is to fly along the railroad tracks.

Well, if you fly along the railroad tracks to get out of the area you fly right over Eastshore. So, if you fly to the east, then what happens is you're back into the pattern again. So you have to stay -- so if you put Eastshore in, and you say don't -- I'm not talking about plumes, not talking about velocities -- but if you say don't fly over Eastshore, that puts you over towards Russell.

So how far over should you go? Then if you can't fly over Russell, what are the maintenance people going to do on testing engines, testing aircraft, that sort of thing? It's a dead space.

So, you couldn't identify what aircraft go there or why. Was it an air traffic controller that sent them over there? I don't know. That's part of the issue of who flies there.

On the IFR approach I agree the published approach is written, it's in the FAA approaches; they called published approaches. But what was not mentioned is two things. One, because Hayward is a practice airport, training airport, when you do an IFR approach -- excuse me, when you do a VOR approach to Hayward, the practice is, if you're under the hood, or you're IFR, the published approach shows you go to the Oakland VOR. But to keep traffic out of the Oakland airspace, what Center does, or ATC, is to have you come around and make a left turn right at the end of the airport, to a left, or the airport area.

So this is not published. That puts you what? Right back over Eastshore in that area, depending on what kind of aircraft you have. If you have a jet you can make the turn a bigger turn.

So, I think you have to take into consideration this is a three-dimensional airspace. Now, if you're on a freeway, and traffic gets congested and you have to stop, well, everybody stops. But you can't stop when you're in an aircraft. A helicopter you can; it can

hover. So what the people do in the tower, they manage the density of aircraft and the different types of aircraft with space.

That's all, thank you.

HEARING OFFICER KRAMER: Thank you.

PRESIDING MEMBER GEESMAN: I have one question, sir. Could I ask you a question?

Is it your perception that the City doesn't care about any of these issues?

MR. WILSON: I'm not so sure that they don't care, it's I don't think, unless you're a pilot, and I don't think anybody in the City is a pilot, they don't understand and grasp what I just said.

You heard the mathematics of it. You heard the theory of it. You don't even have to address the plume issue. It's a space issue. And I heard who's going to what, the FAA didn't respond. I don't think it's the City's problem. It's whose responsibility is it, and apparently you're not quite sure.

And you're asking these people should you take on the responsibility. Quote, FAA, end quote. And I'm not sure that's your responsibility. It's a tough call.

PRESIDING MEMBER GEESMAN: But it seems to me that the land use question is, you know, they're subject to our override, but the land use question seems, in the judgment of the FAA, and certainly in the judgment of the City, seem to be the City's to make.

The concerns you raised I don't believe are related to the plume question at all. They really are land use questions.

MR. WILSON: Yes.

PRESIDING MEMBER GEESMAN: And I'm wondering, is it your perception the City doesn't care about these issues? Or the City's just simply ignorant of them?

MR. WILSON: Maybe both.

PRESIDING MEMBER GEESMAN: Okay.

MR. McDONALD: I have another question for you. What if --

HEARING OFFICER KRAMER: I'm sorry, sir, --

PRESIDING MEMBER GEESMAN: Will you come up --

MR. McDONALD: It's for you --

HEARING OFFICER KRAMER: Well, --

PRESIDING MEMBER GEESMAN: But you need

to talk into the microphone. We don't pick you up on the transcript unless you talk into the microphone.

And I know your name's Mr. McDonald, but you're going to have to introduce yourself again so that our transcript will capture you.

MR. McDONALD: What if you get a wave-off from the tower as you're just about ready to set down? What do you have to do then?

MR. WILSON: I thought wave-offs were for aircraft carriers, but I think what he means is that possibly there could be a aircraft moving out, and they tell you to go around.

There might not be enough spacing. So what happens is you would continue on your flight path over the runway, clean up your aircraft, pick the flaps up, and then do a left turn or a right turn, whichever -- if you're on 28-left, you do a left turn, going down wind. And then whatever situation they had, you'd do the so-called wave-off or go-around.

Hopefully it would correct itself, or the spacing, what-have-you, that would allow you to come back in.

MR. McDONALD: My name's Robert

McDonald.

MR. WILSON: And also the traffic pattern, it's not exact. I think everybody agreed with that. What happens is, is that if you have a lot of traffic, for example, if you have pilots that are trying to do their three touch-and-goes to take passengers, you have a lot of people in the pattern.

So another spacing thing to do would be when you make your left turn, then they tell you to do an extended down-wind. So now you have many many airplanes within the landing zone. So there's different techniques used for different type of aircraft for spacing.

One last issue. There is a hazard with Oakland 29er. And the hazard is wing vortices. So if you're -- regardless of what size aircraft you are, when you take off from 28-left, and the heavier aircraft have a tendency to take off on 28-left because it's longer.

So, what happens is when you enter the runway for your takeoff, and there's a heavy coming in on 29er, the tower will warn you of a heavy aircraft coming in on approach to Oakland 29er. And give you an advisory on wing vortices

coming off the wings.

So that's also a hazard. So now you're adding not -- let's not talk about plume. Even if you designated the airspace to reserve that in case of, it's another thing that you have to avoid. If you add the plume and say the plume is a hazard, now you've got multiple hazards in an area.

HEARING OFFICER KRAMER: Thank you.

MR. WILSON: Thank you.

MR. SPEAKER: Any more aviation?

HEARING OFFICER KRAMER: Well, Ms. LePell, did you want to go now or wait? Were all your comments other than aviation?

MS. LePELL: My comments are very general and very specific, but not about the aviation, as such.

HEARING OFFICER KRAMER: Okay, well, if you don't mind then, we'll put you towards the end. We'll catch our aviation comments.

Connie Liranzo-Jordan.

MS. LIRANZO-JORDAN: I don't have any.

HEARING OFFICER KRAMER: Okay. Mr. McCarthy.

MR. McCARTHY: Should I introduce myself

again, or --

HEARING OFFICER KRAMER: Please.

MR. McCARTHY: I go by my initials, J, as in John, V as in Vincent, last name McCarthy, M-c-C-a-r-t-h-y. I live in the immediate area.

I've actually worked at the Hayward Air Terminal. I've pumped fuel into airplanes some, I think over 20 years ago, for a short time. I've done that in the Army, as well, a long time ago.

And I have to wonder where -- this was mentioned as an example early on relating to Blythe, and I believe what I heard, the power plant issues actually were, I think it was an insurance issue at the Blythe Airport.

How would it have an impact on insurance if that's not a legitimate concern related to hazards? Well, I haven't heard a reply on that kind of a question yet. But I have to throw that out again because I haven't heard a reply.

Moving on a little further, as far as the FAA is concerned, I used to have respect for that agency before deregulation. When you have short staffing, short enforcement, short funding and public policy for sale at the highest levels, agency for sale at the highest level, I wouldn't

rely on that as the sole authority.

So, getting into the issues relating to traffic and what was mentioned in this reply from Russell City, the flyer I picked up outside. As far as -- let's see, there was mentioned -- yeah, as far as the maneuverable airspace is concerned, it really is a space issue that I have to wonder when people compare airspace issues for air traffic directly with ground space issues for moving vehicle, for a car or a truck or whatever, that reminds me of how people make direct comparisons between servicing an aircraft and servicing an automobile.

They obviously don't know anything about aircraft. It's simply a matter of if you run out of fuel on the ground, you're stopped. Well, if you run out of fuel in the air, yeah, you're stopped, but you're stopped in terms of airspeed, but you have a rude awakening coming within seconds. So I think that that comparison is a little bit out of line.

And as far as airspace restrictions go, for the same reason, aircraft obviously move a lot faster so you need more space. And so as Mr. Williams was pointing out, you're without that

space. Well, you're out of luck in a much bigger, much faster way than cars usually, or drivers on the ground usually experience.

I don't have the background that some pilots have. But I have about nine years worth of military aviation experience in ground support. And I have some idea just how critical this gets.

Most of that is with Army aircraft, which are mainly rotor aircraft. And that's another can of worms. They are more sensitive in certain respects because the mode of flight is a little different, where your thrust or power isn't the same direction as your lift. As opposed to with a fixed wing your power or thrust is let's say horizontal, where your lift is vertical.

But where it gets a little more interesting than that, if you're flying over a plume and the plume is interrupting both your ground effect, which gives you like a lift close to the ground, and having a negative effect on your lift converting it to drag, or a percentage of it to drag, you have another issue that is a bit different from fixed wing.

So I think beyond just saying, oh, pilots are trained for this or that, it really

calls for a little more attention.

Thank you very much.

HEARING OFFICER KRAMER: Thank you. Mr. Cameron.

MR. CAMERON: The name's Charlie Cameron, C-a-m-e-r-o-n. A Hayward resident.

First of all, Commissioners, last Wednesday I did attend the workshop. Last Wednesday I did know about the staff assessments number 1 and 2. A booklet that was available. But I didn't pick one up because I did read in the staff assessment that it would be at the main Hayward Public Library.

I did sit through all of the talk last Wednesday, and nothing was brought up about public transit under the traffic and transportation issue.

I knew also to write to Mr. Lance by the Friday the 13th deadline to get comments in. Being that none of the public transit issues were brought up, I felt that it wasn't an issue.

I want to bring to staff's attention, Mr. Lance Shaw's attention, under figure 2 in the staff assessment 1 and 2, you do have a listing here of the word Southern Pacific Railroad twice.

it is incorrect. There's no such thing as the Southern Pacific Railroad in the continental United States.

The former Southern Pacific Railroad was taken over by the Union Pacific Railroad about 1994, '95 or '96. It's rights, liability and issue.

Also on figure 1 you do have the railroad listed, the railroad tracks and ties, but no names. You do, under figure 2, have the AC transit revenue routes 83 and 84. I tried to bring to bring to staff's attention down off the new proposed Eastshore most of a lot of AC transit routes are deadheading, going through the yard. These buses cannot have any delays during any types of construction.

I'd like to ask Mr. Adams and your staff, are there going to be any delays? And have they heard? And I offered to have them contact AC transit. Did AC transit contact staff and give their opinion or comments or concerns?

MR. ADAMS: If I could address that. First of all, on figure 1, actually would be figure 2, these labels, or who owns the railroad is determined by our cartography department.

Basically they call up a road or bus or railroad network; and they click on it and it gives them supposedly the current owner.

So I would have to check with them to see -- and their database may be a few years old, so it's conceivable that they thought it was listed as the Southern Pacific. That's why it's on the figure. So I can check that out.

In terms of the bus route, we do show on figure 2, bus route 83 and bus route 86, I believe it is, and basically what it shows is where they run on the streets in the local area.

I'm not aware of, and perhaps I could check with AC transit system, but I'm not aware that there would be any delays related to the construction of the Russell City project in terms of the bus routes. But, I have to say I haven't pursued that to the level of detail that you are implying.

But there was nothing to suggest that the bus routes would be adversely impacted. Although we do require the applicant, or in this case the project owner, to work with the City of Hayward. And that would include metro lines and stuff, to see if there's going to be any impacts

that would affect it.

And one other thing I didn't mention and I should, and it's not an aviation safety issue, but the I-880/SR-92 interchange is going to be completely reconstructed. And that could possibly have some impact if it was to overlap. And it's going to be a four-year project.

But we were advised that most of the work would take place at night, so construction traffic for the project would not be affected. However, trans-1 requires the project owner to work with the City and Caltrans in terms of coordinating. So if, in fact, there would be overlap between this reconstruction and the construction of the facility, that would be worked out as part of the traffic construction control plan. So I feel that that would be addressed.

MR. CAMERON: Well, Commissioner, just to be pointing fingers, I brought up to the staff's attention about this deadheading issue to Mr. Shaw dozens of times. I've written him about it. And nothing has been ever addressed, responded to.

Staff just leaves me standing and just ignoring. And here when they used to -- it's

stated as supposedly correct information, June 2007.

So, I really wish I wasn't treated this way. And just to be constructively credible, Commissioners, this is your staff. At the staff workshop there was so much, in my opinion, dysfunctional giddy talk, laughing, stupid hahaha continually. It was just almost they could have been much better professionally addressed.

Mr. Shaw, I really wish you would have addressed it and got a better handle on all the issues I sent in to you. I get no response. Thank you.

HEARING OFFICER KRAMER: Thank you.

MR. SHAW: I would like to respond. Mr. Cameron, I apologize. I cannot read your writing.

MR. CAMERON: I wish I would have been told that, Mr. Shaw.

MR. SHAW: I didn't know who you were.

MR. CAMERON: Thank you, that's --

MR. SHAW: I didn't know who you were. I did not know who you were.

MS. LePELL: Mr. Kramer, may I go ahead then?

HEARING OFFICER KRAMER: Sure.

MS. LePELL: Please.

MS. STRATTAN: May I respond very quickly to Mr. Cameron? Regarding the traffic, I did contact the bus depot and the transit. And they have indicated that they don't anticipate that the Russell City project or the proposed Eastshore project will result in any delays to either the normal bus traffic, their deadhead traffic, or to the storage areas for the buses.

MS. LePELL: Good evening, again. I'm Audrey LePell; I live at 299 Ocie Way, Hayward.

What you are looking at is a flyer that was given to me some weeks back. And I just thought, because it listed the names of the birds that I had addressed you earlier, I thought you'd just want to see that for your information. I was not the originator of the writing.

Mr. Geesman, I wanted to say something to you, please, and that is the citizens of Hayward that I know and that I have talked to, are vitally interested in what happens on our shoreline, are vitally interested in these power plants. And most of them feel, I would say, all the ones who talked to me anyway, completely negative about their being built.

I wanted to say one other thing because I thought -- and I want to thank Mr. Shaw because I appeared at the work session the staff put on. And he was most helpful to me, as a person, and for what I had to say.

So, to clarify, were the remarks made at the workshop, were those in your packet? Did you get all the transcript?

HEARING OFFICER KRAMER: No. Those aren't even transcribed, so we are completely unaware of what was said then, unless somebody reports it to us.

MS. LePELL: All right, then I want to address you about land use, but specifically transportation. And here's the letter that I wrote to Mr. Shaw and I'll read it very quickly. It's not long.

So, first of all, I addressed it to him and I said:

"Dear Sir and Staff: Thank you for the opportunity to address the staff and the California Energy Commission with regards to the proposed building of two energy plants in northwest Hayward near our beautiful shoreline."

"The Board of Directors of CATS,

Citizens for Alternative Transportation Solutions, on July the 2nd, 2007, voted to oppose the creation and building of the original Russell City Energy Center, Hayward, formerly known as the Calpine plant."

"The Board of Directors also voted to oppose the creation and building of a second plant, so-called feeder facility called Russell City Energy Company, LLC. These names are references on page 3.5."

"CATS, as an organization, has been in existence since 1985 and has paid close attention to transportation matters throughout the City of Hayward and its adjacent areas. CATS addresses the City of Hayward and other public agencies and private agencies when necessary."

"Through the good offices of dedicated volunteers, such as Mr. Andrew Wilson and his colleagues, CATS was recently given the opportunity to look at the amendment number 1," I have the number there. "As President of CATS I received this document on July 1, 2007. The mission of our organization is to deal with traffic issues in and around Hayward. And according to your statement on page 1-3, the,

quote, 'traffic and transportation sections" unquote, will be released as a supplement on July the 18th, yesterday, 2007."

And then, "CATS will welcome the opportunity to review this document and make appropriate comments. Thank you for your kind attention."

Well, needless to say, I have received no notice of this meeting. I received no supplement till earlier this evening from Mr. Shaw. I received nothing. And I left my name, my email address, et cetera. So that's for the record of not being notified what I consider appropriately.

So, the process. What is the process now when we end the evening tonight, Mr. Kramer, please?

HEARING OFFICER KRAMER: We'll be discussing that, but if the record is closed, as I suspect it will be, then the Committee will prepare a proposed decision, which will be released, among other places, on the Commission's website.

And you should see Mr. Monasmith if you want to have a copy mailed to you, so you make

sure you get your name on the mailing list.

MS. LePELL: I have indicated that a week ago, and also tonight. Thank you.

HEARING OFFICER KRAMER: And then after a proposed decision is released, there will be a time for comments. A period will be set to receive comments. And we will likely have a hearing, probably right here, to receive oral comments from the public. But you're also encouraged to submit written comments either before or maybe a few days after that meeting.

But at some point that comment period will close. It will probably be no more than 30 days. It might be somewhat less.

And then if it's necessary to revise the proposed decision, depending on how complicated those revisions are, there may be an additional comment period or there may not.

The next step after that is the proposed decision goes to the full Energy Commission. And they would make a decision on it. And they would be doing that in Sacramento. But you would have the ability to call in on the telephone to that meeting.

MS. LePELL: Thank you. So then that

that means that we people in the public can still write you letters about additional things that there was no way for me and others, perhaps, to comment on? Because I just got the document tonight.

HEARING OFFICER KRAMER: You can submit comments. The sooner the better because when we close the record we start writing the decision. And they're more likely to be given consideration if they come in fairly soon.

MS. LePELL: Okay, just to clarify, that's 30 days hence from today? Is that what you're saying?

HEARING OFFICER KRAMER: No, it's likely that -- I don't know that we're going to be able to estimate how long it's going to take us to create the draft. But it will be after the draft is released, the proposed decision.

MS. LePELL: Okay, then I wanted to say one more thing. This has been a really interesting evening for me. But I wanted to say that I was a member of the Alameda County Planning Commission for nine and a half years. I enjoyed every bit of it.

I really love land use decisions, but my

philosophy was always to have a transportation element accompanying land use decisions. And Cindy Horvath, who was here earlier, I think could testify to that.

So, I wanted to mention two things. In the ACTIA flyer, which tells the public what will be happening to Hayward, I want to mention seven projects that will be happening within the next year to the next ten years. And I'm a member of the Citizens Advisory Committee for ACTIA, Alameda County Transportation Improvement Authority.

And that's that half-cent sales tax that goes to certain transportation programs in the County of Alameda.

So, quickly. I-238 Winding. Next, East 14th, Hesperian Boulevard. Next, Hesperian/ Lewelling/Winding. These are all projects within this area. Next, I-580 interchange improvements in Castro Valley. Next, I-880/state route 92 reliever route. Clawiter/Whitesell interchange. Next, Lewelling/East Lewelling, widening in San Lorenzo. And lastly, Washington Avenue interchange in San Leandro.

And I erred one place, and that would be

the I-580 interchange improvements in Castro Valley, that's actually in the northeast corner possibly of Hayward.

So, as you can see by this statement that I just made, and this booklet, Hayward has a lot of transportation projects. And they'll be going on from now on. So, let you know that.

And then lastly I just want to thank you for the process. It's been very interesting. I've appeared at other state commissions, and I want to thank you for your courtesy to all of us, and your kindness and your patience.

HEARING OFFICER KRAMER: Thank you. Do we have any other public comments? Ma'am.

MS. AVORASHED: So you get to end with the girl with the weird name. Again, my name is Wafaa Avorashed. And I'm with Healthy San Leandro.

I just want to go back to a member of the panel that said that we're in the U.S., not Australia. And we should pay attention to what goes on in the U.S.

He's right, we're in the U.S. But being an activist in the aviation industry -- with the aviation industry, I have to say that the FAA has

dropped the ball on many occasions. And I would say to you, you should look at EU and Australia for a lot of the new procedures and policies that they put forth for their operations.

And I was part of several symposiums that were conducted around aviation, and we use Australia quite a bit to learn about some of the take-off and landing procedures that help eliminate some of the noise.

So I would say we are part of a global world that we need to pay attention and learn from outsiders.

Just to give you an idea, I grew up at Oakland Airport. Since I was 10 years old my father had a flight school and a maintenance operations. And I learned to fly, as well as all my brothers and sisters.

In our flight school we had a lot of foreigners come and learn to fly. So, when we talk about overflight, we had four, in the time that I grew up, four accidents that were fatal. And they were all by foreign students. And it's because they didn't follow the instruction that they were taught. So that opportunity of having that happen is there.

I totally back these two people up on their whole testimony. I am so concerned about everything that they had said that I feel like these are the guardians here for protecting the community. So everybody else has political protection or advantage or potentials that I'm worried about.

I know that in all of my aviation activism -- by the way, I also sit on the Northfield Committee for Oakland Airport. And I sat on that committee for ten years right now. I'm still involved in all of that. Developing procedures to have noise abatement. So I'm very impacted by what is being said here.

I do know that in my activism that more politics is involved with maneuvering what the FAA does. And I'm very concerned about that. I've see it happen, and it's still happening. And all at the federal level. They are impacted politically.

So we need to communicate with the congresspeople, the policymakers, to take out all this oversight by politicians. We need the -- like one gentleman said, before -- I'm not sure when the deregulation happened, there was real

policymakers that protected our airspace and protected the community here. And we need to go back to that. We need accountability from these federal agencies that make these policies. They need to be the guardians. They need to be the protectors of what is happening on the ground with the land use, as well as the air.

We need to have more people that speak up and not feel repercussions from these policymakers that sit locally on the council, because they've been bought once, they've been bought twice, they've been bought a thousand times. And that needs to stop because we can't have developers and corporations that do not care about the community that they work and operate in. They don't live here. We live here. We're the defense line communities. We need to have more people that are guardians that protect us. And I'm looking for you to be that.

As for land use commissioners, I also have a problem with who sits on that board. That board is made up of policymakers, of elected policymakers. So these are the concerns I have with ever, things, or in decisions that are being made that affect us.

We've seen that happen, by the way, where the FAA has failed in some ways, and I'll tell you what it's about. A few years ago we had an incident that nobody counted on. And it affected all of us. Let's not make decisions like that again. Because it impacts all of us; impacted people around the world, as well.

What happens in aviation impacts all of us wherever we go. So we need to make decisions that protects our pilots, protects the neighborhoods that are surrounded by these airports, and protects the air quality of what we're impacted with.

Thank you so much.

HEARING OFFICER KRAMER: Thank you. I don't see Mr. DuBose in the audience, so I guess he's left. That was my last blue card.

Do we have any additional public comments?

Seeing none, --

MR. WILSON: Could I just --

HEARING OFFICER KRAMER: Very briefly since you've been up there for quite a --

MR. WILSON: It's going to be real brief. Andy Wilson, resident of Hayward. I'd

like to just address the database that people were referring to.

If you go back 30 years the power companies, what kind of power plant structures were there. They were typically either natural draft, very tall stacks; or through the years they started adding fans, ID fans, FD fans and put multiple units around one stack. So the stack was very very high.

So, what I would question is some of the data in the database with these so-called power plants, and pilots flying around them. And if you go back to the coal days, which we still have some coal, you have plumes and you stay away from plumes. You stay away from high stacks.

So, is the data skewed because pilots are smart people and they stay away from obstacles and tall stacks? So I would really question how many power plants you have in close proximity to airports 30 or 40 years ago -- or how far back, 30 years? Say 30 years. About 30 years.

So what was the environment of power plants and where were they located, how many, back 30 years. I think what's happening now is power plants are smaller, the stacks, they're using the

gas turbines in different configurations. The stacks are shorter. You have a smaller footprint. You don't see the plume, doesn't affect people, et cetera.

So maybe the database is a little distorted. Thank you.

HEARING OFFICER KRAMER: Thank you. We have a couple of issues regarding exhibits. I did find the FAA study as a part of what we're calling exhibit 20, so that is already in the record.

However, I don't believe the 1986 airport land use plan is -- it's referred to in the staff's testimony, but I don't think we have a copy to look at. And given that it's been discussed a fair amount, I think the Commission, if nothing else, on its own motion would like to make that an exhibit. Unless a party is going to sponsor it.

MS. STRATTAN: We have a single copy. We can make copies for the Committee on the sections that were referenced if that'll be acceptable.

HEARING OFFICER KRAMER: Is it that thick that I'm looking at?

MS. STRATTAN: Um-hum; that's why you

may only want a portion of it?

HEARING OFFICER KRAMER: Well, I think it's better for us to have the whole thing in case we have to look at the context.

MS. STRATTAN: Okay.

HEARING OFFICER KRAMER: So, if you could just bring one to my office tomorrow, we'll --

MS. STRATTAN: You can have this one now if you'd like it.

HEARING OFFICER KRAMER: Okay, great. Thank you.

MS. STRATTAN: And if you need more I'll be glad to request it from the Airport Land Use Commission.

HEARING OFFICER KRAMER: I think one will give us a good start. That's probably all we need.

Are there any objections from any party?

MR. SHAW: Has that been docketed?

MS. STRATTAN: It was listed in our references. I don't think it's been docketed.

MR. ADAMS: I don't believe it was docketed.

HEARING OFFICER KRAMER: Don't worry

about that, either, because when we get done with this case we'll docket our whole box of evidence as the evidence package.

Is there an objection from any party to receiving that report?

MR. WHEATLAND: We have no objection.

MR. HAAVIK: None.

HEARING OFFICER KRAMER: Okay, thank you.

The other documents were mentioned by Ms. Ford. The grant assurances. Do you have the complete documents with you? Okay, not just excerpts?

MS. FORD: No, (inaudible).

HEARING OFFICER KRAMER: Okay. That was grant assurances number 20 and 21 she referred to. Is there an objection from any party to the admission of those?

MR. WHEATLAND: We have not seen those documents, so I'd like to reserve an objection until I've had a chance at least to look at it.

HEARING OFFICER KRAMER: Okay.

MR. WHEATLAND: Or if we can be provided a copy here for a moment, I think I can look at it and --

HEARING OFFICER KRAMER: Sure. Ms. Ford, why don't you give it to Mr. Wheatland first. And we'll hold off further discussion of that.

But, before I go too far then, the Airport Land Use policy plan of July 16, 1986, will be exhibit 107. And that is entered into evidence.

Exhibit 108, which has not been ruled upon yet, but we'll mark as grant assurances number 20 and 22. And I'll get a more proper name once I see it. Twenty and 21, rather.

MR. RATLIFF: What did you say? That was Mr. Haavik's document, I believe.

MR. HAAVIK: Yes, that --

HEARING OFFICER KRAMER: Oh, I'm sorry.

MR. HAAVIK: -- the FAA --

HEARING OFFICER KRAMER: Yes, we could give it one of Mr. Haavik's numbers.

MR. HAAVIK: -- the FAA -- or the information for Ms. Ford should be 208, 209.

HEARING OFFICER KRAMER: 208, yeah. We'll just lump them as one package.

Mr. Wheatland, did you have any objections?

MR. WHEATLAND: No, no, we have no objection to the introduction of that --

HEARING OFFICER KRAMER: Staff?

MR. RATLIFF: No.

HEARING OFFICER KRAMER: Thank you. Okay, did either party have any closing comments on the land use and traffic and transportation topics?

MR. WHEATLAND: No.

MR. RATLIFF: No.

HEARING OFFICER KRAMER: Okay, I believe we still have a couple of exhibits --

MS. STRATTAN: I have just one comment for Commissioner Geesman. You asked about a place to put these concerns regarding air space. And I believe it would be that they would present a significant impact to the land use associated with the airport operations.

PRESIDING MEMBER GEESMAN: Outside of safety and outside of LORS?

MS. STRATTAN: It would be under CEQA, a significant impact related to land use and the airport operations.

PRESIDING MEMBER GEESMAN: Okay, thank you.

HEARING OFFICER KRAMER: Okay, to finish up with the exhibits, we have exhibits 23 through --

MR. WHEATLAND: 31.

HEARING OFFICER KRAMER: -- that have not yet been admitted.

MR. WHEATLAND: So moved.

HEARING OFFICER KRAMER: Any objection?

MR. RATLIFF: No.

MR. HAAVIK: None.

HEARING OFFICER KRAMER: Seeing none, that's received into evidence -- or those are.

Then we have exhibit 207 for Mr. Haavik. Do you move that into evidence?

MR. HAAVIK: I move that in, please.

HEARING OFFICER KRAMER: any objections?

MR. WHEATLAND: No.

HEARING OFFICER KRAMER: Thank you. So that's received into evidence.

And we just received 208 a minute ago. So I believe we've received into evidence all of the documents that were numbered. And that will take care of the exhibit list.

Now, the next order of business is closing arguments in general. Does any party want

to make any? Seeing none.

We'll move to determining whether additional hearings or briefing is required. It appears that we have no additional matters to conduct hearings upon, so I think we can close the evidentiary record, with the exception of leaving transmission system engineering open to receive exhibit 106, which will be a jointly prepared revised set of conditions for that topic area by staff and the applicant.

Mr. Haavik, did you want to review those before the --

MR. HAAVIK: No.

HEARING OFFICER KRAMER: Okay, so they need not run those by you. Okay.

And also I believe we need to leave the waste management section open for exhibit 105, also to be prepared and submitted later.

Could the parties commit to getting that in by the end of next week?

MR. RATLIFF: Yes.

MR. WHEATLAND: Yes.

HEARING OFFICER KRAMER: Okay. That would be both of those exhibits, 105 and 106.

And then there was a request to leave

open the record in land use and traffic and transportation for additional agency comments. Is that acceptable to -- that was from staff -- is that acceptable to the other parties?

MR. WHEATLAND: Well, our position on that is that we're having to leave the record open as long as it doesn't delay the issuance of the PMPD. But if it were to delay the issuance of the PMPD, we would object.

HEARING OFFICER KRAMER: Okay. No, I don't think it would. Okay, so we will leave that record open for that purpose. And that would be agency comments on the aviation issues, not any general issue for those topics.

With that let's go off the record for a second.

(Brief recess.)

HEARING OFFICER KRAMER: The Committee sees no need for any additional briefing, but I wanted to ask the parties if they were of the mind that they wanted to submit briefs on some topic or another.

MR. WHEATLAND: We agree with the Committee. We believe the Committee has a full record before it, and would waive further briefs.

HEARING OFFICER KRAMER: Mr. Haavik?

MR. HAAVIK: I agree.

HEARING OFFICER KRAMER: Mr. Ratliff?

MR. RATLIFF: I agree.

HEARING OFFICER KRAMER: Okay, given that, we will try to issue a proposed decision within 30 days. Sooner, if possible, but you just never know how things can -- various things can complicate the schedule.

And then after that, for the benefit of the public, there would be a 15- to 30-day comment period. Towards the end of that period we would, like I said earlier, have a public meeting here to receive comments. But you're also encouraged to submit comments in writing during that period.

And then, if necessary, we would revise the proposed decision. If the changes are very simple, or just in the order of an errata, then we probably would not have an additional public comment period. But if we made significant changes, we might then recirculate it for a shorter period for additional comment.

And then, as I say, it goes to the full five-member Energy Commission for a final decision.

MR. WHEATLAND: May I briefly address the schedule?

HEARING OFFICER KRAMER: Certainly.

MR. WHEATLAND: I want to say, first of all, that we greatly appreciate the effort that the Committee and the staff and all the parties have made in this proceeding to help us come to a decision in an expeditious manner.

The staff, although we have disagreed on this one issue, has worked very cooperatively with us and very diligently with us in resolving all the other issues in this case.

We also appreciate the fact that the Committee has stayed here until the next day to see this record closed and to help us move this forward.

But we would respectfully request that the Committee make an effort to bring this matter before the full Commission for a decision by August 29th.

If this were a six-month AFC proceeding typically the PMPD would be issued 20 days after the close of evidentiary hearing. There would be an optional hearing before the Committee on the PMPD, and the public comment period would close 15

days after the PMPD was issued.

If, for example, this schedule were followed, this would allow a decision by August 29th. There are two reasons why I make the request for the August 29th date.

The first is that I mentioned before, we're trying to have the Public Utilities Commission process the gen-tie application. And we'll be making efforts to prefile that with them in August, even before the decision. But they are still going to need a minimum of four months to process that application once this Commission reaches a decision.

And second of all, the RCEC license was issued on September 11th of 2002. And I'm still researching the Commission's requirements with respect to the duration of that license. But there is a possibility that if we do not receive a decision on the amendment prior to December 11th of 2002, we may need to request an extension of the license as a separate action by the Commission.

We didn't contemplate that when we originally filed last November, because we didn't dream of it being a ten-month proceeding. But now

that we face that deadline, August 29th, or a special Commission meeting prior to September 11th may be very important for us.

HEARING OFFICER KRAMER: Well, I think we'll see what we can do.

Okay, well, having said that, does any party have any other closing remarks? Otherwise we've concluded our business here today.

Seeing none, we are adjourned. Thank you for coming.

(Whereupon, at 12:17 a.m., the evidentiary hearing was adjourned.)

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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 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 hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 29th day of July, 2007.