Affidavit

STATE OF FLORIDA

DIVISION OF ADMINISTRATIVE HEARINGS

CLARENCE ROWE,

Petitioner,

vs.

CASE NO.: 99-2581

OLEANDER POWER PROJECT, L.P., and DEPARTMENT OF ENVIRONMENTAL PROTECTION,

Respondent.

* * * * *

AFFIDAVIT OF COURT REPORTER

I, DEBRA M. ARTER, Registered Diplomate Reporter, being first duly sworn, do swear on my oath as follows:

THAT I was the Court Reporter who did report the Administrative Hearing held in the above cause on August 30, 1999, at the Brevard County Government Center, 2725 Frank Jamieson Way, Viera, Florida; that said proceedings were transcribed by me under my direction and control.

THAT corrections have been made to the transcript pursuant to Exhibit 1, Numbers 1-8, 10-19, 21-48, 50-58, 60-74, 78-88, attached hereto, with the following additional corrections:

Page 4, Line 7: Add "4" to Exhibits

Page 66, Line 11: Change "injustice" to "justice"

Page 67, Line 6 and 11: " " "

Page 68, Line 9: " " "

Page 69, Line 10 and 11: " " "

Page 115, Line 18: " " "

Page 204, Line 7: Add "4" to Exhibits.

THEREFORE, it is respectfully requested that this Transcript of Proceedings with attached corrections be filed in compliance with the Rules of Civil Procedure.

DATED THIS 20th day of September, 1999.

DEBRA M. ARTER

SWORN TO AND SUBSCRIBED BEFORE ME THIS 20th day of September, 1999.

NOTARY PUBLIC
Commission Expires:

Mary E. Baney
Notary Public, State of Florida
Commission No. CC 611669
My Commission Exp. 2/7/2001
Bonded Through Fla. Notary Service & Bonding Co.

Exhibit 1

1. Page 3, line 10: change "RICHARD" to "ROBERT"
2. Page 11, line 3: change "ROWER" to "ROWE"
3. Page 36, line 14: change "100,000" to "1000"
4. Page 50, line 16: change "Allender" to "Al Linero"
5. Page 54, line 6: change "interest" to "isn't"
6. Page 55, line 22: change "wavered" to "waiver"
7. Page 55, line 23: change "watering" to "monitoring"
8. Page 66, line 24: change "north" to "minority"
9. Page 68, line 25: change "position" to "motion"
10. Page 73, line 25: change "a critical" to "the correct"
11. Page 74, line 9: change "feel" to "fuel"
12. Page 76, line 2: delete "available"
13. Page 80, line 19: change "Liver" to "River"
14. Page 83, line 3: add "impact" after "environmental"
15. Page 83, line 21: add "you" after "Thank"
16. Page 87, line 2: change "MR. DEE" to "JUDGE"
17. Page 92, line 23: change "much" to "many"
18. Page 93, line 24: change "exhibit" to "compatability"
19. Page 94, line 17: add "compatability" after "use"
20. Page 107, line 13: change "foot" to "feet"

21. Page 117, line 21: change "is the" to "this"

22. Page 118, line 25: change "1898" to "12898"

23. Page 122, line 8: change ".24" to "2.4"

24. Page 123, line 17: change "out of" to "in"

25. Page 124, line 8: change "populous" to "populace"

26. Page 134, line 2: change "incidence" to "incident"

27. Page 135, line 15: change "PSD" to "project"

28. Page 147, line 21: change the "," to a "." and delete the "." after "80s"

29. Page 148, line 9: change "decrease" to "increase"

30. Page 151, line 6: change "pile" to "pit"

31. Page 152, line 19: change "plan" to "plant"

32. Page 153, line 13: change "error" to "air"

33. Page 156, line 24: change "plant" to "plan"

34. Page 158, line 15: change "internally" to "internationally"

35. Page 161, line 3: change "pollution" to "population"

36. Page 161, line 18: change "perfect" to "per"

37. Page 162, line 20: change "most" to "both"

38. Page 163, line 15: change "injections" to "injection"

39. Page 163, line 19: change "oils" to "oil"

40. Page 164, line 15: add a "." after pounds

41. Page 164, line 16: change "for" to "For"; change the "." after "opacity to a "," and change "Both" to "both"

42. Page 165, line 10: change "perfect" to "per"

43. Page 170, line 18: change "perfect" to "per"

44. Page 170, line 20: change "percent" to "parts"

45. Page 170, line 25: change "considering" to "concerning"

46. Page 173, line 3: change "2000" to "1000"

47. Page 173, line 9: change "experience" to "expensive"

48. Page 173, line 21: change "units" to "hours"

49. Page 174, line 2: change "that's" to "as"

50. Page 174, line 7: change "I" to "it"

51. Page 175, line 8: change "19" to "29" (compare with page 175, line 22 and page 176, line 16)

52. Page 175, line 22: change "35" to "30" (compare with page 175, line 8 and page 176, line 15)

53. Page 180, line 7: change "committee" to "comment"

54. Page 184, line 12: change "RICHARD" to "ROBERT"

55. Page 185, line 14: change "1993" to "1973"

56. Page 185, line 21: change "1993" to "1973"

57. Page 187, line 14: change "a" to "an expert"

58. Page 189, line 16: change "sustained" to "set"

59. Page 190, line 21: change "qualities" to "quality standards"

60. Page 191, line 9: change "theory" to "area"

61. Page 192, line 16: change "Orlando" to "Oleander"

62. Page 193, line 16: change "aversion" to "inversion"

63. Page 194, line ~~18~~ 14: change "arching" to "averaging"

64. Page 197, line 9: change ".6" to ".6%"

65. Page 203, line 10: change "RICHARD" to "ROBERT"

66. Page 205, line 7: change "Standard" to "Stanton"

67. Page 205, line 21: change "sulfur" to "sulfur dioxide"

68. Page 208, line 17: change "air" to "area"

69. Page 208, line 23: change "assistance" to "assisting"

70. Page 211, line 2: change "FCJ" to "FCG"

71. Page 211, line 13: change "25" to ".5"

72. Page 212, line 22: change "design to overcome to estimate" to "designed to over estimate"

73. Page 215, line 7: change "in reference" to "and references"

74. Page 215, line 18: change "documents in Section" to "sections in Exhibit"

75. Page 216, line 17: change "JUDGE" to "MR. DEE"

76. Page 216, line 20: change "production" to "sections"

77. Page 217, line 9: change "prepping" to "preparation"

78. Page 217, line 14: Start a new paragraph and add "MR. DEE:" after "Sure"

79. Page 219, line 16: change "cure" to "occur"

80. Page 233, line 1: change "March" to "May"

81. Page 233, line 24: change "available" to "available control"

82. Page 234, line 3: change "equaling" to "equal"

83. Page 235, line 8: change "PSD" to "in PSD"

84. Page 237, line 3: change "emission" to "permit"

85. Page 237, line 15: add "4" after "3" (compare with page 237, line 9)

86. Page 245, line 5: change "irrelevant" to "relevant"

87. Page 245, line 6: change "immaterial" to "material"

88. Page 249, line 22: change "objection" to "deposition"

I N D E X

E X H I B I T S

OLEANDER'S EXHIBITS:	ID	EVIDENCE
7, 8, 12, 16, 17, 31, 34, 35, 36, 45, 46		132
14, 28, 29, 30, 1, 6, 9, 10, 13		176
15, 20-27, 37-44		217
2, 3, 4, 5, 11, 19, 32		237

DEP'S EXHIIBTS:

NONE

PETITIONER'S EXHIBITS:

1		180
3		252
7		261

I mean on those witnesses by the Department. Any questions?

MR. ROWE: Yes. I don't know if it's a question, but -- oh, yes, it's a question.

I've been approached by a lot of the citizens that have what I have referred to as a vested right or Constitutional right in reference to the freedom of speech. They have asked to see if they would be given an opportunity to bring their concerns to your attention for consideration.

I did put that in writing to you. I did not get a response to that concern.

Also, during a meeting on May the 13th, both DEP attorneys did make it known that the members of the community will be, would be given an opportunity to speak before you and that you would take their comments in consideration.

In making this request, I would like to --

JUDGE: Who said that?

MR. ROWE: The DEP attorney, as well as Mr. -- what is his name, Mr. Halin, I think his name is. I wasn't at -- I do

plant. The maximum particulate in an isograph or whatever it's called, sir, I'm no professional, certainly, there's an X on my street showing the maximum particulate.

My daughter has asthma. Through study, we see no other state that we can find on the Internet that would allow a power plant and light industrial, let alone one of this size, through. Through our research, we have found out that the initial 2,000 hours, and our belief was it was going to take this power plant over the 100 tons of VOCs which should have provided on-site monitoring. It was taken down to 10,000 after that.

A letter from DEP states that at any time they could request more hours of oil burning.

Here we are with what we feel is already an unfair, you know, amount of pollution from power plants in our area because we have two already in our area that the County Commission is working on trying to change to gas power plants and here we're going to allow another one that has a tremendous amount of potential

that I repeated. And again, I can substantiate by bringing in this information, I have it with me today.

MR. DEE: But you claim no expertise with regard to the issues that you've just discussed.

MR. BOCK: Yes, sir, that's correct.

MR. DEE: That's all I need.

MR. BOCK: I guess our major concerns, Judge, before I sit down and again, I appreciate this time, again, it's a time for a coward and I appreciate that, sir. I say that humbly.

We don't feel, and I say we, many of us people have discussed, we've been very well treated by Mr. Al Linero, he has answered questions. We don't feel DEP is an agency that's protecting us, we feel it's business as usual. We don't feel Brevard County has protected us. Our attorney has, John Harris has said going into the moratorium it's illegal. We are the people against all odds with no way to win as we should.

Now, these facts which we stated are

to the people that are speaking here, I, too, felt that that was in the form of intimidation. We're not lawyers, we're not professionals --

JUDGE: Mr. Rowe --

MR. ROWE: Yes, sir.

JUDGE: -- this isn't your opportunity for public comment.

MR. ROWE: Go right ahead, sir.

JUDGE: Mr. Spahr, anything different other than what has already been said by Mr. Bock?

MR. SPAHR: Yes, sir. Ms. Derrick and Ms. Moody, I got different substance than Mr. Bock.

JUDGE: Go ahead, state your name for the record.

MR. SPAHR: My name is Douglas Spahr, Cocoa, Florida, and I'm representing myself here today and I don't purport to be an air pollution expert. But I am a citizen who did take the trouble to get the entire Intent to Issue package, including such things as the technical evaluation, preliminary determination, so on and so forth.

And in one area of Florida here we do

have some Class One areas and the National Park Service has permitting responsibility for that area. And I did get a copy of their permit application guidance for new air pollution sources. And one thing that interests me here, they're making a statement here, says all assumptions for the analysis should be explicitly stated with sufficient information to be furnished to the National Park Service (inaudible).

I went through it. They have a page here, but it's all the significant happenings with regard to this case. You know, letters back and forth and so on and so forth. And I was kind of surprised to see in there, I saw no formal request from DEP or data to do what the National Park Service thinks is fundamental, duplicate their analysis.

Because this whole permit thing is predicated on this, on this analysis and they're using, you know, data from the Orlando Airport estimates, the DEP waiver requirement to do pre-construction monitoring, so we're tied down to the healthy air we believe is on the validity of a computer

that you identified as wishing to make public comment, is that correct?

MR. ROWE: Those are some. There will probably be some coming in later. Like I said, a lot of these people have to work and they do have to talk with their employers in order to come here.

JUDGE: Okay. The other pending matter that we have is Oleander's Motion to Strike. That Motion, Mr. Dee, is, identifies phrases such environmental justice, families and grandchildren and citizens as the offensive language.

MR. DEE: Yes, sir, and I would like to supplement that before you rule on it.

JUDGE: Go ahead.

MR. DEE: With regard to the allegations about Mr. Rowe's legal standing to represent other people, that portion of the Motion, we believe, is well-founded and should be granted.

With regard to his allegations about this project being a crass commercial venture being foisted upon the local minority community, we also believe that portion of the Motion

should be granted because the allegation is purely speculative, it's clearly impertinent, if not downright scandalous.

The third portion of that Motion, though, deals with Mr. Rowe's concerns about environmental justice. At this time I'm going to withdraw that portion of the Motion. We have taken Mr. Rowe's deposition on August 13th and at that time he made clear that he intended to pursue his environmental justice claims with U.S. Department of Justice and EPA and anyone else who would listen to him.

He's also made veiled reference to his desire to take immediate appeal of today's proceedings. Given the possibility that Mr. Rowe will attempt to pursue an appeal on those legal issues, we believe that it is in our best interest to move forward and address factual merits of the allegations.

We believe that the issue is not legally relevant in the sense that DEP does not have the statutory authority to address it. But in the event that someone

in a higher forum should disagree, we'd like to have already covered the factual merits of the claim because we believe there is no factual support for the allegation. So we're trying to cover both sides of the issue.

And for that reason, we would ask that you not strike the allegations of environmental justice.

JUDGE: Okay, Mr. Goorland?

MR. GOORLAND: Well, Your Honor, one part of the statement that Mr. Dee made that I agree with was, I agree that, you know, it is not part of our standard permitting jurisdiction. And therefore, I don't think it becomes a relevant issue. And I'm talking, of course, about that environmental justice position.

The rest of that --

JUDGE: Are you objecting to Mr. Dee's withdrawal of that portion of the Motion?

MR. GOORLAND: Well, I don't object to his withdrawal of the Motion. However --

JUDGE: It's only a portion of the position.

MR. GOORLAND: However, I'd like the record to reflect our position.

JUDGE: As a matter of law.

MR. GOORLAND: Yes.

JUDGE: Okay, Mr. Rowe --

MR. ROWE: Yes, sir.

JUDGE: -- the Motion, that portion of the Motion to Strike addressing the issues of the phrase "environmental justice" has been withdrawn, but the Motion remains with respect to that portion of the Petition for Administrative Hearing dealing with family, grandchildren and citizens and gross commercial venture.

Do you wish to respond?

MR. ROWE: I'm not sure whether I understand it, but -- could you give me some clarifications? I thought he withdrew his concern in reference to the subject.

JUDGE: The Motion to Strike moved to strike three categories of language in the Petition for Administrative Hearing.

MR. ROWE: All right, sir.

JUDGE: The first category was language pertaining to environmental justice.

the issue is whether Oleander has provided reasonable assurances to DEP that Oleander's project will comply with the applicable DEP rules under the DEP program for the prevention of significant deterioration of air quality.

The prevention of significant deterioration, or PSD permit, that is at issue in this case, would authorize the construction of certain facilities that are potential sources of airborne emissions. In this case, those facilities include five combustion turbines that would be used to generate electricity at an electrical power plant that Oleander plans to build here in Brevard County. It would also include two fuel storage tanks.

In this case, the evidence will demonstrate that the Florida Department of Environmental Protection has, indeed, carefully reviewed Oleander's application and reached a preliminary decision to issue the PSD permit to Oleander. The evidence will further demonstrate the DEP's decision is the correct one and the

PSD permit should, indeed, be issued.

The combustion turbines that are at issue in this case truly represent state of the art technology. The turbines are extremely fuel efficient. They will use much less fuel than the existing fleet of similar oil and gas-fired power plants here in Florida.

They will -- by using less fuel, they, in turn, will produce less in the way of airborne emissions.

In addition, these new generation combustion turbines have design features that are pollution prevention features. They prevent the airborne pollution from being formed in the first instance.

This project will use natural gas as its primary fuel. Natural gas is the cleanest burning fossil fuel that's commercially available today for the generation of electricity. If natural gas is not available, very low sulfur fuel oil will be used as a backup fuel.

This project will be a peaking power plant. It will provide power to

project must comply with DEP's best available control technology. And indeed, the limits that are being proposed in this case are being used as a model for facilities hroughout the United States. They will set the standard for other similar peaking plants throughout the United States.

Now, Oleander has performed an evaluation of the project's impacts on ambient air quality. Oleander's analysis was prepared in accordance with standard DEP and EPA procedures and guidelines. That analysis was very conservative. It overestimates the potential impacts from the project.

Even using a conservative analysis, the evidence will demonstrate that the project's maximum impacts on ambient air quality will be less than one percent of any of the ambient air quality standards that are enforced by DEP. Those ambient air quality standards were developed by the United States Environmental Protection Agency and, in turn, were adopted by the Department of Environmental Protection.

mentioned, have been promulgated expressly to protect human health and welfare.

Nonetheless, in an effort to respond to these concerns, Oleander did an analysis of the cumulative impacts associated with this project when combined with the effects of the other power plants in this region. The evidence will show that those impacts, whether viewing Oleander individually or cumulatively with the other facilities, there will not be any measurable or meaningful change in ambient air quality in this region as a result of the power plant that Oleander has proposed.

Mr. Rowe also in his deposition has raised questions about the project's impacts on water quality in surrounding lakes and streams such as the Saint John's River and Indian River Lagoon. It should be noted that normally DEP does not require an applicant for a PSD permit to determine whether the airborne emissions from its source will cause adverse impacts on water quality. Nonetheless, here, too, Oleander has attempted to evaluate Mr. Rowe's concerns.

they have worked on many power plants around the United States and they've worked on many air pollution and environmental impact statements throughout the globe, throughout the world. Oleander's fourth witness will be a representative of the Florida Department of Environmental Protection, Mr. Al Linero. Mr. Linero is also qualified to discuss the issues that have been raised in this case.

He has approximately 20 years of experience working on air pollution issues. He will explain on behalf of the Department why DEP has concluded that the permit should be issued for this project.

So in summary, we believe the evidence will overwhelmingly demonstrate that this project complies with all of the applicable DEP criteria and, for that reason, the Department should issue the PSD permit that is in question.

JUDGE: Thank you, Mr. Dee. Mr. Goorland?

MR. GOORLAND: No statement.

JUDGE: Mr. Rowe, opening statement?

MR. ROWE: As previously stated, I have no expertise, neither am I a lawyer, but we

your first three witnesses going to take?

This is just a lunch scheduling issue, so let's go off the record.

(Whereupon, discussion was held off the record.)

JUDGE: Let's go back on the record. We'll get to that, Mr. Rowe.

Mr. Dee, call your first witness.

Oh, and for the record, when you're presenting expert testimony --

MR. DEE: Yes, sir.

JUDGE: -- have you, Mr. Rowe, have you reviewed the qualifications of these experts?

MR. ROWE: Sir, even if I did, it really doesn't mean anything to me. I'm just a common --

JUDGE: You have a right to object to the qualifications of the experts, and if you want to, if you want Mr. Dee, Mr. Dee to lay those qualifications out on the record as what we call laying a predicate for the tender of the expert, then that's your right to do that.

If you don't have any objection to

include utilities such as power plants and transmission lines. It also involves other infrastructure such as pipelines, highways, airports, landfills.

Another major component of my work during the 20 years has been the environmental assessment of those proposed facilities on both the physical and biological environment as well as on the cultural environment.

In addition, I have been responsible for seeking permits and approvals from federal, state and local agencies for those projects.

Q. What kinds of permits have you been responsible for obtaining for these projects?

A. The permits that are typically required and that I've been responsible for obtaining include air construction permits, including prevention of significant deterioration, including water use permits, waste water and storm water permitting, dredge and fill permitting and comprehensive plan amendments, rezoning and site plan approvals.

Q. How many -- approximately how many environmental impact studies and environmental analyses have you performed over the last 20 plus years?

A. Well over 200 studies.

Q. And how many projects have you worked on where you've had to evaluate the environmental permitting and land use issues concerning an electrical power plant or electrical

transmission line?

A. That would be well in excess of 20 studies.

Q. Has all of your work been performed here in Florida?

A. It has not. Most of my work has been conducted in Florida. However, I have worked in approximately 20 other states as well as over half a dozen foreign countries.

Q. Has all of your work been performed for private clients?

A. It has not. I have worked directly for federal and state governments, agencies, including environmental agencies, as well as local governments. That would be counties as well as cities.

Q. Who employed you for your work overseas?

A. A number of clients, the most frequent of which was the World Bank.

Q. Have you ever been qualified and allowed to testify as an expert witness before?

A. I have, yes.

Q. And what areas have you addressed in your testimony as an expert witness?

A. In previous proceedings, I've qualified as an expert in environmental planning, resource planning, land use compatibility analysis, environmental impact analysis and socioeconomic analysis.

Q. Have you ever appeared before any regulatory body or agency to render opinions concerning the environmental impacts associated with an electrical power plant?

A. Yes, I have. I've appeared before federal, state and local agencies to either present findings of our studies or to seek approval for projects.

Q. Mr. Zwolak, I've previously showed you Exhibit 16. Is Exhibit 16 a true and correct copy of your resume'?

A. Yes, it is.

Q. Doses your resume' accurately summarize your academic and professional accomplishments?

A. It does, yes.

MR. DEE: Your Honor, at this time we would proffer Mr. Zwolak as an expert concerning land use planning --

JUDGE: Go ahead.

MR. DEE: -- land use compatibility analyses and socioeconomic and environmental impact assessments.

JUDGE: Mr. Goorland, any objection?

MR. GOORLAND: No objection, Your Honor.

JUDGE: Mr. Rowe, any objection?

MR. ROWE: No objection.

JUDGE: The Witness is accepted as an expert for the purposes tendered without

has he repled, but he has continued to make it clear in his deposition that he wants to pursue this issue with EPA and the Department of Justice.

And we're simply trying to address the issue now on the facts and we intend to address it legally, as well, in our post hearing submittals. To ensure that, whether it's relevant or not, we've addressed the merits of his concern.

JUDGE: The Order granted the Motion to Dismiss and it rendered the Motion to Strike moot.

MR. DEE: Yes, sir.

JUDGE: The Motion to Dismiss has stated as one of its grounds that Petition allegedly, made allegations of environmental justice, over which this forum has no jurisdiction.

MR. DEE: That was the allegation we raised. You never got to the merits of that allegation because you ruled that the pleading was insufficient as a matter of law.

JUDGE: Okay. Anything further, Mr.

purposes. But again, I will say I have no objection if they wish to show the relationship with the community.

JUDGE: Mr. Rowe, any response on the objection?

MR. ROWE: I would request that it remain as a part of the Complaint as stated.

JUDGE: Okay. Well, we're -- that's not at issue.

MR. ROWE: It's not? Okay.

JUDGE: The issue is there's an objection to a specific question.

MR. GOORLAND: And it's a standing objection, Your Honor, to a line of questioning.

JUDGE: Anything further, Mr. Rowe?

MR. ROWE: No, sir.

JUDGE: The objection is sustained.

MR. DEE: Your Honor, may we proffer --

JUDGE: Yes --

MR. DEE: -- the testimony?

JUDGE: -- you certainly may.

MR. DEE: All right.

JUDGE: Note for the record when you're completed with the proffer.

MR. DEE: Yes, sir.

PROFFERED DIRECT EXAMINATION

BY MR. DEE:

Q. Mr. Zwolak, did you perform an assessment of whether this project would cause adverse impacts on minority and low-income neighborhoods?

A. Yes, I did.

Q. And why did you perform this work?

A. During the spring of 1998, we were conducting a visual impact assessment. And part of the requirements of that methodology was to drive all public rights-of-way within a several-mile radius of the project site.

It was at that time that we noticed that there was a community south of State Road 520 that had a racial minority.

So I disclosed our discovery to Oleander and suggested that they conduct a study, and they immediately authorized us to proceed.

Q. What criteria did you use when trying to determine whether the project would adversely affect any minority or low-income neighborhoods?

A. Well, we initially looked at the Executive Order dealing with environmental justice, that's Executive Order 12898, Federal Actions Affecting Environmental Justice in

Have you tried to determine where the maximum air quality impacts from this project will occur?

A. Yes.

Q. All right. Approximately how far from the site will those impacts occur?

A. They vary, depending upon the parameter that's evaluated. The maximum impacts range anywhere from .25 miles to 2.4 miles.

Q. All right, I'd like you to turn to Exhibit 33 and look at Table 3 and explain the analysis that you performed concerning the project's air quality impact on minority and other neighborhoods.

A. Exhibit 33 is a report entitled Environmental Justice Assessment Constellation Power Development, Inc., Oleander Power Project. Table 3 is found on Page Six. And -- just one page from the back of the report.

And it identifies for each air quality parameter the direction and distance of the maximum concentration. It identifies the value of that concentration, its comparison to state ambient air quality standards.

And it also identifies the racial characteristics of that location as defined by census tract, block group data.

Q. Can you summarize the findings that are found in that Table?

A. Yes, in summary, the most significant concentration of air emission from the proposed project would be .6 percent of the State's ambient air quality standard.

The evaluation also identifies that for the one parameter whose worst case falls within the community to the southeast of the site, that concentration would be one twentieth of one percent of the State's ambient air quality standard.

Q. So you looked at eight scenarios and seven of the situations that you evaluated the maximum impacts occurred in communities that are not minority communities?

A. That is correct. With the one exception of the, one of the eight parameters, the percent minority as determined by the census bureau is anywhere from 0 percent to 2 percent minority population.

Q. So if the maximum impacts occur in non minority communities in seven out of eight scenarios, what conclusions can you draw as to whether the project will have a disproportionate impact on minority neighborhoods?

A. This evaluation suggests that there would not be any disproportionate impact on minority populations.

Q. Now, you've mentioned that you've compared these maximum impacts to ambient air quality standards. Do you know whether those standards are designed to protect human health and welfare?

A. They are, they're designed to protect human health and welfare for all citizens. That would include young and old, as well as those that are less healthy due to other types of medical problems.

Q. If the maximum impacts in all cases are less than one percent of the applicable standard, what conclusions did you draw concerning the project's impacts on air quality and the populace in Brevard County?

A. I would conclude that there is negligible impact of the proposed project on all of the residents of Brevard County.

Q. All right, sir. Now, you've referred to Exhibit Number 33.

A. Yes.

Q. To the best of your knowledge, are the statements contained in that Exhibit true and correct?

A. They are.

Q. And do you adopt those statements as part of your testimony today?

A. I do.

Q. Have you ever prepared similar environmental assessments before concerning environmental justice issues?

A. Yes, I have.

Q. And were your findings in those cases accepted by the appropriate regulatory agencies?

A. His findings were that in his professional career, he had never come across that incident to occur.

Q. So he does not expect that to occur in this case?

A. Correct, correct. Given the absence of species on site, where threatened species might be, the known corridors in Brevard County, and where the site is located, he would expect that that would not occur, there would be no impact from migration as well as occupancy on the site.

Q. As a land use planner, have you considered whether this development is compatible with surrounding land uses?

A. Yes, I have.

Q. And what is your conclusion concerning that issue?

A. That the proposed project is compatible with the immediately adjacent land use, that being industrial/commercial. It is also compatible with the residential uses that are quite some distance away from the industrial/commercial area.

Q. Have you considered the potential impacts associated with truck traffic going to and from the site?

A. Yes.

Q. Could you summarize your conclusions concerning truck traffic.

A. During the middle portion of 1998, we conducted a traffic impact assessment that evaluated the ability of the existing infrastructure, this being primarily State Road 520,

to accommodate both construction and operation traffic during the a.m. and p.m. peak hours.

And we found that the, both State Road 520 and Townsend Road operate at a very high level of service. That level of service would be an indicator of a lack of congestion both with and without the project.

Supplementing that work, we also evaluated the entire route alternatives from the Port of Cape Canaveral to the project site to determine if specifically fuel oil trucks would have an impact, an adverse impact on the highway corridor.

Q. In the course of your work on this project, have you formed a professional opinion as to whether the PSD permit -- excuse me, have you formed a professional opinion as to whether the project satisfies the DEP criteria for the issuance of the PSD permit?

A. As Project Manager, I relied on my resource staff who developed the draft documents which I reviewed and approved during the course of the project.

Q. What is that opinion?

A. My opinion is that the proposed project does comply with the applicable standards.

Q. You heard the public comments that were offered this morning. Was there anything said this morning that would change your opinion concerning the issuance of the PSD

Q. In reference to the alleged wetlands in that particular area, can you still build in the wetlands, or -- first of all, are there wetlands, is there wetlands there?

A. I can refer to an Exhibit and show you more clearly.

Q. Yes, please.

A. I'll refer to Exhibit 46, which is an aerial photograph of the project site. Most of the wetlands on site that occur naturally are located in the southwest portion of the project site both north and south of Townsend Road. Those wetlands will not be impacted by the project.

The wetlands that will be impacted by the project include a drainage ditch that runs north/south through the center of the property and a portion, not all, but a portion of the eastern third of the site.

Now, this historically included some natural uplands as well as upland areas. What occurred is, as you can see, this area has already been impacted by previous development. This area was scraped in the '70s when the borrow pit was dug out. In the late '70s and '80s, it was used as a location for open storage.

And what happened is when this area was graded, it was graded flat without the ability to convey storm water off the site quickly. So wetland plants now have come up and

occupied portions of this eastern area.

The project impacts will primarily be to this ditch and areas from the center of the project site out a bit toward the east.

A lot of the disturbed wetland that's located on the eastern portion of the site will be used as a buffer area for use to the east and will be used, will enhance that area, both the natural wetland and the artificial wetland to increase its diversity in wildlife habitat.

Q. Okay, thank you. You say that there will be some regulatory audit keeping in reference to fuel hours burned, gas, et cetera.

A. Yes.

Q. Who will maintain those records, DEP or a higher authority?

A. To my knowledge, they'll be maintained both by the operator of the plant and by the Department of Environmental Protection.

Q. At the state level or the federal level?

A. State.

Q. Does the federal level ever come in and oversee the state, or is that just a no-no?

A. Not to my knowledge; but perhaps the second witness can speak more to that.

Q. Okay. I think you testified that there were no

Q. And they never saw any birds that were being commented about today.

A. That's correct.

Q. Okay. You said there's a drainage ditch there. Is that drainage ditch used for storm water to go into that rock pit? What is the purpose of that ditch?

A. The -- I'll refer again to Exhibit 46. The ditch that's located in the central portion of the property essentially drains rainwater from the property itself. Because of the elevations to the north of the site, the disturbed and developed areas east of the site and I-95 to the west, the drainage for the site is essential to the site itself.

Eventually, this discharge goes underneath Interstate 95 and then into State Road 520 right-of-way.

Q. So you won't be disturbing any of that area there, you'll be building, more or less, to the, closer to yourself there.

A. Correct, the footprint of construction is limited to this area of pine flat woods on the western half of the site and then the disturbed areas that are in the east central portion of the site.

Q. Thank you, sir. Of all that water that you're using running through that system, how much of that water, if you can say hypothetically, I don't know what I'm talking

about, if you put a gallon in there, how much of that will go up in evaporation?

A. Probably 98, 99 percent.

Q. 98, 99 percent. And how much water's going to be running through that system a day?

A. 121,000 gallons a day when the plant is operating on natural gas for a 17-hour period. It could be substantially less if the operation is of shorter duration. It would be more, obviously, if it ran greater than 17 hours.

Q. But it is anticipated it will run 17 hours a day?

A. One of the design bases for the project is a 17-hour operational day.

Q. How much will it deal with in oil, is there a change in the figures there? Would it use more or less?

A. The operation on fuel oil would result in an increase in the use of water.

Q. And how much less in burning oil?

A. Well, it would be more than oil -- I'm sorry, it would be more than natural gas. If the plant were to operate 17 hours a day on natural gas, water consumption would be approximately 1,115,000 gallon.

Q. And if it was burning oil, how much water consumption would be utilized?

A. That was the number I just mentioned.

Q. That was oil.

A. I'm sorry, I misunderstood you.
Q. That was oil.
A. Yes.
Q. And could you repeat that figure again for the natural gas?
A. Yes, for natural gas, based on a 17-hour day, anticipated water use would be 121,000 gallons per day.
Q. You have classified yourselves as a Title V company. What kind of pollutants will be produced?
A. Golder is not a Title V company.
Q. No, no, not you, Oleander Power Plant is.
A. Okay.
MR. DEE: Mr. Rowe, the air issues will be addressed by the next two witnesses.
MR. ROWE: Sorry about that.
THE WITNESS: That's okay.
MR. ROWE: I think that concludes my questions.
JUDGE: Redirect.
MR. DEE: Yes, sir, just very briefly.

REDIRECT EXAMINATION

BY MR. DEE:
Q. Mr. Zwolak, do you know whether the United States Environmental Protection Agency has recommended guidelines

Q. What does that mean when you say you're a principal?

A. I'm a senior level person involved in the review and conducting of various environmental studies. My specialty is air pollution control, specifically working with electrical power plants.

Q. What academic training do you have for your work on power plants?

A. I have a Bachelor's of Science in Engineering, 1970, from Florida Atlantic University, a Master's of Science, 1976, from University of Central Florida. I have a year and a half, completed all my course work for a Ph.D at the University of Central Florida and have conducted, been present at EPA-sponsored training programs on air pollution control and air pollution studies.

Q. Approximately how many years have you worked on air pollution control issues?

A. Twenty-nine years.

Q. Could you just summarize your work experience with regard to air pollution control issues.

A. I started my career in 1970 working for the predecessor of the Environmental Protection Agency. I was actually assigned to the State of Florida developing the first air pollution plan.

In April, '72, I was employed by the predecessor

As a professional engineer, I've been involved in hundreds of air pollution projects principally involving the preparation of the air pollution permits, PSD permits for electric power plants. I've been involved in probably 30,000 megawatts of different types of studies.

Q. All right, sir. Has all of your work occurred here in Florida?

A. No, it hasn't.

Q. Could you give us an idea of other locations where you've worked.

A. I've worked primarily in Florida since 1970. I have worked in other states, other southeast states, as well as the state of Maryland and the midwest.

I've also worked in power plant development internationally, being a consultant for the World Bank in Pakistan as well as various projects throughout the world.

I've worked in China, Jamaica, Dominican Republic, Buenos Aires, Argentina, and Brazil.

Q. Did you also work for the U.S. Agency for International Development on these kinds of projects?

A. Yes, as a direct contractor evaluating and performing environmental studies.

Q. Have you ever performed any analyses of the best available control technology for the various sources of air pollution?

the Environmental Protection Agency starting in 1970 as a means to protect the general public health and welfare of the general population with an adequate margin of safety. It's where people breathe.

Generally, these types of standards are established in units of mass per unit volume.

The second aspect of air quality management is really emission standards of some type. Emission standards can be set in a couple ways. One is to establish an emission standard to meet an ambient standard, or they could be technology based.

Technology-based standards were promulgated by EPA starting in the early '70s as new source performance standards. That is, for new sources, they have to meet these more stringent base technology standards.

These standards are typically given in units that are common to the type of industry for a combustion turbine. It's in parts per million by volume.

Q. Let's go back to the Oleander Power Project. Can you just briefly describe the type of combustion technology that will be used in this case and the fuels that will be used.

A. The Oleander Power Project will use combustion turbines that are manufactured by the General Electric Company. The model is the Frame 7FA combustion turbine.

It's an industrial -- heavy industrial turbine that works on a same principle as a jet engine, albeit more complicated.

The engine will burn primarily natural gas with a limit of 3,390 hours per year with a backup fuel of oil, and that's going to be limited to an equivalent of 1,000 hours per year.

Q. What Can you tell us about the state of your knowledge about combustion turbines, and these GE turbines in particular, how advanced are they?

A. These combustion turbines will be the most advanced for peaking service in Florida. Much improvements have been made in the technology of combustion turbines to make them more and more efficient.

They also use a type of air pollution control technology that's called Dry Low-No_x, usually called DLN, that will be used to control the emissions when combusting natural gas. And when combusting oil, water injection will be used.

If you look at the fleet of turbines in Florida, these will be clearly the most efficient in terms of both emissions as well as producing power.

Q. Now, you've mentioned that this project will be limited to operating a maximum of 3,390 hours per year. How many hours are there in a year?

A. There's 8,760 per year.

Q. What will happen during those other hours in this instance?

A. The plant would not operate for those hours. Essentially, 60 percent of the time the plant just wouldn't operate at all.

Q. Would there be any airborne emissions during 60 percent of the time?

A. No.

Q. Now, how will the air pollutant emissions be controlled at the Oleander Power Project?

A. As I mentioned briefly, there's various pollutants that could be emitted and the technology that's incorporated into the General Electric turbines are the DLN technology, and that will control nitrogen oxides when combusting the natural gas, and water injection when combusting the oil.

Also, pollutants such as particulate matter and sulfur dioxide which are more from the impurities in fuel will be very low. Natural gas is the cleanest of fossil fuels. And the type of oil that will be used is also very, very clean.

Other pollutants such as carbon monoxide and volatile organic compounds are controlled in the combustion process itself.

Q. Okay, could you take a look at Exhibit 28 and use that Exhibit to describe for us the type and amounts of air

pollutants that will be emitted from the Oleander Power Project.

A. All right, Exhibit 28 shows the emissions of the Oleander Project for the major air pollutants that would be emitted by the project. The first column has the five major pollutants, particulate matter and PM_{10}. PM_{10} is particulate matter with the aerodynamic diameter less than ten microns. Sulfur dioxide, nitrogen oxide, carbon monoxide and volatile organic compounds.

Of the five, the emission will be slightly different on gas and oil. And then there will be different emission rates. What I've shown in the Exhibit in the third and fourth column is the emission level consistent to what is normally indicated in the type of technology.

For particulate matter, for example, it's in pounds. For opacity, both fuels will have what's called 10 percent opacity. For nitrogen oxide, carbon monoxide and VOC's, it's in parts per million, that is so many parts by volume in a million parts of air.

Also, in the table it shows pounds per million BTU, pounds per in CT, which is part of the permitting process as well as tons per year and tons per year for the overall project. That's used mainly in items of regulatory criteria and is somewhat misleading when the, particularly when you're dealing with something like a gas.

For example, the combustion turbine actually uses air as its working fluid. And for each hour it operates, it will actually process 3.5 million pounds of air. If it were to operate the whole year, it's something like six million tons.

So sort of put in perspective, some of these emissions with respect to the new source performance standards that I had mentioned earlier, there are two that are important. One is for nitrogen oxide. The proposed natural gas limit is nine parts per million by volume with a correction for oxygen. The actual limit, new source performance standard limit that the EPA has promulgated and the EPA has adopted is over 100. So it's a factor of ten.

Similarly, for sulfur dioxide it's a percentage of fuel. It's going to be 16 to about 400 times less than the new source performance standard. For example, on oil, the -- in the event it is operated, it's .05 percent sulfur at the Oleander Project. The new source performance standard for the project limit is .8, so well over a factor of 10.

Q. Let me go back for just a second very quickly. You mentioned CT, does that mean the combustion turbine?

A. Yes, combustion turbine.

Q. You talked about 10 percent opacity, is that an emission limit that will be imposed on this facility?

A. Yes, it is.

summarize your findings and your BACT analysis for each of the pollutants that you evaluated.

A. Exhibit 30 is a summary of the best available control technologies for the major pollutants. What was concluded was that the Dry Low-NO_X, or DLN technology, for natural gas and water injection for oil were the best combustion technologies for nitrogen oxides, carbon monoxide and volatile organic compounds.

For pollutants that are involved in impurities in the fuel, it was natural gas and low sulfur distillate oil, which includes particulate matter and sulfur dioxide considerations.

Q. All right, does the BACT determination result in the establishment of an emission limit?

A. Yes, it does.

Q. All right, sir. What emission limits were established as BACT in this case for the control of NO_X?

A. For NO_X, a BACT limit of nine parts per million by volume dry collected to -- corrected to 15 percent O_2 when firing natural gas and 42 parts per million again corrected to 15 percent oxygen for distillate oil. And that's using Dry Low-NO_X technology for gas and water injection for oil.

Q. All right, sir, before we broke for lunch, Mr. Rowe was asking Mr. Zwolak about comments that were apparently submitted by the U.S. Fish and Wildlife Service concerning

originally 2,000 hours, the same maximum limit of operation, but within that 2,000 hours of oil, and that was decreased to 1,000 hours of oil.

Q. Does Oleander have any economic incentives to want to reduce the use of fuel oil?

A. Yes, they do. There's actually two factors that are involved and both together increase the cost of burning oil by 35 to 50 percent on the same basis of gas. One factor is oil is just more expensive.

And secondly, the water and everything else, the maintenance adds to that cost.

Q. Oleander would have to buy water when it's burning natural fuel oil?

A. Effectively, yes. Even if they're getting water, you have to treat it because the water that's being used is essentially pure, pure water. So you make it, it has a cost.

Q. How do the limits on fuel oil in this case compare to the limits imposed on other power plants?

A. It's actually lower than most plants. If you look at probably well over 1,000 megawatts of simple cycles permitted in the 1990s, the average is more like 2,000 hours of operation for those units. This is actually lower than those facilities.

Q. Have you reviewed Exhibit 11, which is the draft for the permit for the Oleander Power Project?

A. Yes, I have.

Q. If the project is built and operated that's described in the application that has been submitted to the DEP, will the project be able to comply with all the conditions and emission limits contained in DEP's draft permit?

A. Yes, it can.

Q. Can the GE combustion turbines that are being proposed in this case comply with DEP's combustion limits?

A. Yes.

Q. Can Oleander hire or staff their own plant to be in compliance with the DEP permit limits?

A. Yes, these type of combustion turbines are highly automated. Having been to engineering school with a slide rule, the difference is between having valves and having computer screens. Power plants today have all computer screens and all the control equipment is fully automated.

The parent company of Oleander has an institution where they actually -- the environmental people train the operators in how to operate, and there will be what's called continuous emission monitors monitoring the pollutants from the stacks so they'll know how they're operating at any time.

Q. Did you prepare any sections of Exhibit One, which is the air permit application submitted to DEP for the project?

A. Yes, I did.

Q. All right. Did you prepare or assist with the preparation of Exhibits 6, 9, 10 and 13, which are letters and materials from Golder to DEP concerning this project? That would be 6, 9, 10 and 13.

A. Yes.

Q. All right, now, during your testimony you've discussed Exhibits 14, 28, 29 and 30. Did you prepare all of these exhibits?

A. Yes, I did.

Q. With regard to all of these Exhibits that I've just mentioned, all of these Exhibits that you've prepared, are the statements in those documents true and correct, to the best of your knowledge?

A. Yes, they are.

Q. Do you adopt the statements in those documents as part of your testimony here today?

A. Yes, I do.

MR. DEE: Your Honor, at this time we would like to move the following Exhibits into evidence: It would be Exhibits 1, 6, 9, 10, 13, 14, 28, 29 and 30.

JUDGE: You didn't mention 11.

MR. DEE: That's a letter from DEP. We'll have another witness address that.

In addition, Exhibit 13 is Golder's response back to the Florida Department of Environmental Protection concerning these comments from U.S. Fish and Wildlife Service.

So Mr. Kosky's testimony is consistent with the information he previously provided to DEP concerning this comment.

JUDGE: Well, Mr. Rowe has moved a document, I guess it's Petitioner's One?

MR. ROWE: It could be, yes, sir, whatever you deem appropriate. Is that Petitioner or Exhibit?

JUDGE: It's an exhibit and I'm identifying it as Petitioner's Exhibit One.

MR. ROWE: Okay.

JUDGE: Mr. Dee?

MR. DEE: We have no objection.

JUDGE: Mr. Goorland?

MR. GOORLAND: No objection.

JUDGE: Petitioner's One as identified is admitted on the record without objection.

(Whereupon, Petitioner's Exhibit Number One was marked and received in evidence.)

JUDGE: Go ahead, Mr. Rowe.

questions.

Judge: Redirect?

MR. DEE: No, sir.

JUDGE: Thank you, you're excused from your oath, you're excused as a witness.

Call your next witness.

MR. DEE: At this time Oleander would call Mr. Robert McCann, Junior

WHEREUPON,

ROBERT McCANN,

being first duly sworn by the Court Reporter to tell the whole truth as hereinafter certified, was examined and testified under the oath as follows:

JUDGE: State your first and last name and spell each name for the record.

THE WITNESS: Robert, McCann, R O B E R T, McCann, M C C A N N.

JUDGE: Mr. Dee.

DIRECT EXAMINATION

BY MR. DEE:

Q. Are you familiar with the Oleander Power Project that is the subject of this proceeding?

A. Yes, I am.

Q. Could you tell us just tell us briefly why you're familiar with it?

A. I was involved in preparing the air quality impact assessment for the project.

Q. Where are you employed?

A. I'm employed at Golder Associates, Incorporated.

Q. And what are your general duties and responsibilities at Golder?

A. I'm an associate and Manager of the Air Resources Group. This group consists of professionals who perform work in air dispersion modeling, air permitting and monitoring of air pollutants and noise.

Q. What academic training do you have for your work?

A. I have a Bachelor of Science in Meteorology in 1973 from Lowell Technological Institute out of the University of Massachusetts at Lowell.

Q. How many years of experience do you have working on air pollution issues?

A. About 25 years.

Q. Could you summarize your work experience for us?

A. Yes, after graduation from college in 1973, I worked at Environmental Research and Technology, now known as ENSR, E N S R, in Lexington and Concord, Massachusetts. I was a staff scientist, Project Manager and Assistant Manager of the Air Impact Section within the Air Quality

Q. Have you taught any professional courses in your field?

A. I've taught several air dispersion modeling courses for both private industry as well as public workshops in the United States as well as foreign countries such as Argentina and the Dominican Republic. For those courses, I instructed professionals who were evaluating the air quality effects for permitting purposes such as PSD or non attainment provisions.

Q. Have you ever been qualified to testify as an expert witness in any proceeding?

A. Yes, I have.

Q. Could you just tell us generally what was it you addressed in those cases?

A. I was qualified as a expert in the field of meteorology and air quality impact quality assessments for eight site certification hearings. Over the last 12 years, 13 years, these involved site certifications for the Seminole Electric Company, Hardee Unit 3 facility in 1995, the original units, Hardee 1 and 2 in 1990. In 1985 and 1986 in Broward County the resource recovery facilities and then several others in the State of Florida.

Q. I'd like you to take a look at Exhibit 15 and tell me if that's a true and correct copy of your resume'.

A. Yes, it is.

Q. Does your resume' accurately summarize your

A. The basic purpose is to protect the general health and welfare of the public. There are two types of air quality standards, primary standards and secondary standards.

The primary standards are designed to protect the public health, while the secondary standards are designed to protect the public welfare with an adequate margin of safety from known or adverse effects of air pollutants. Generally, the secondary standards are equal to or lower than the primary standards.

Q. Are the ambient air quality standards designed to protect everyone?

A. Yes, they are, they're designed to protect the very young, children, the elderly, as well as the sick, including those with respiratory problems, such as asthmatics.

Q. All right, sir, how are ambient air quality standards set?

A. EPA has to go through a rule-making process where they have to evaluate air quality standards every five years, and this consists of committees that are made up of scientists as well as physicians and doctors who review the latest findings on any scientific research that's been done to determine whether the current standards are adequate or revisions need to be made.

Q. Does Florida have ambient air quality standards?

A. Yes, they do. Florida has adopted standards, the

attainment for the pollutant ozone.

Q. So this area is in attainment, which means the air quality here is better than the maximum limits allowed under the ambient air quality standards?

A. That's correct.

Q. What is PSD increments?

A. PSD increments are limits that establish the incremental air quality in an area. The amount of PSD is based on the character or the air is classified according to allowances for increases in air pollutants.

Q. Well, how is Brevard County classified under the PSD program?

A. Brevard County is classified as a PSD Class Two increment, which allows for moderate increases in air pollution.

Q. All right. Did you perform an air quality impact analysis to determine whether the proposed Oleander Power Project would comply with the limits established by the ambient air quality standards and the PSD increments?

A. Yes, I did.

Q. All right, and what was -- excuse me. Did your analysis comply with the DEP and EPA requirements for such assessments?

A. Yes, they did comply with them.

Q. Would you describe for us what you did as part of

your analysis.

A. As part of the analysis, we used methods and methodology recommended for and developed by the U.S. EPA as well as DEP in assessing the air quality assessments for the project. These assessments followed U.S. EPA documentation and air modeling guidelines in terms of models, and using receptors we conformed with what was recommended.

Q. You used a standard EPA model?

A. Yes, we predicted concentrations with the Industrial Source Complex Short Term Dispersion Model, referred to as ISCSTD 3 model, and that's a model typically used in areas that have gently rolling to flat terrain. It's applicable to point sources or stack emissions such as for the project.

And it's specifically recommended for uses by both DEP and EPA for assessments such as the Oleander Power Project.

Q. As part of your modeling, did you use any meteorological data?

A. We used five years of hourly meteorological data from the Orlando International Airport. And that consisted of meteorological parameters such as wind direction, wind speed, temperature and other parameters that are needed to do the air quality assessment.

This particular weather data is recommended

specifically by DEP to address the air quality impacts in this county.

Q. And did your analysis consider potential impacts in the area surrounding the project?

A. Yes, we did. We modeled consistent with the guidelines, what we refer to as receptor locations where we actually located points around the facility. We had more than approximately 500 or more locations out to more than five miles away from the facility.

With that, we also used as part of the modeling exercise, which refers to the regulatory default options, which are a series of technical features that must be used in an application such as this particularly for air permitting purposes.

Q. Well, does the model account for meteorological events such as inversion?

A. Yes, it does. As I mentioned earlier, we used five years of our meteorological data and that includes an -- inversion is the occurrence such as a low mix height, or a very small volume of air in which pollutants can be dispersed or trapped and use high concentrations.

Since we considered five years, we had more than 40,000 weather observations which did include inversions, or low mix heights, to be included in the analysis.

Q. Well, based on your analysis in this case, have you

formed an opinion as to whether the Oleander Power Project will comply with all of the applicable ambient air quality standards and PSD increments?

A. Yes, I've concluded that the Oleander Power Project will comply with all the ambient air quality standards and PSD increments.

Q. I'd like you to take Exhibit 20 and explain for us very briefly how you reached your conclusion.

A. Exhibit 20 is a summary of the maximum pollutant concentrations predicted for the project. And it shows a series of pollutants in the first column from SO_2, sulfur dioxide, NO_2, nitrogen dioxide, particulate model, PM10, as well as carbon monoxide.

And since there are various averaging times for the standards, there are also averaging times for the concentrations. For example, for SO_2 we predicted concentrations for both natural gas and oil-fired that consider in the combustion turbines and then compared them to the ambient air quality standards. What it shows is the concentrations predicted for the power plant are well below the standards.

Higher impacts are occurring for the oil-firing case.

Q. What are EPA significant impact levels?

A. The EPA significant impact levels are threshold

Q. -- so small that you can't represent them with a box, it's basically a flat line?

A. That's correct.

Q. All right, sir.

A. That's correct. The second exhibit, Exhibit 23, this compares the air quality impacts from the project to the ambient air quality standards and PSD increments. What this indicates is that for sulfur dioxide concentrations, the project's impact is less than .6% of the ambient air quality standards and less than two percent of the PSD increment.

The next set of Exhibits, Exhibits 24 and 25, show the similar comparison of particulate matter to ambient predictions for the project. And again, the information is presented for the project in comparison to the ambient air quality standard and PSD Class Two increment. There's a very thin bar compared to the ambient air standards or Class Two increments.

Exhibit 25 shows the percent of the standards. And for particulate matter they were less than .2 percent of the ambient air quality standards and about 1.1 percent, or less than the PSD Class Two increments.

Q. And are 26 and 27 similar?

A. Yes, they are.

Q. They present information for nitrogen dioxide and for --

I N D E X

E X H I B I T S

OLEANDER'S EXHIBITS:	ID	EVIDENCE
7, 8, 12, 16, 17, 31, 34, 35, 36, 45, 46		132
14, 28, 29, 30, 1, 6, 9, 10, 13		176
15, 20-27, 37-44		217
2, 3, 4, 5, 11, 19, 32		237
DEP'S EXHIIBTS:		
NONE		
PETITIONER'S EXHIBITS:		
1		180
3		252
7		261

P R O C E E D I N G S (Continued)

Q. What did you do?

A. We looked at the major sources of air pollutants in the, in the area and they included the Florida Power and Light Canaveral Plant, Orlando Utilities Commission Indian River Plant, as well as the Orlando Utilities Commission Stanton Energy Center, then developed through the modeling that we had performed. On the project we used the ISCST model and the five years of meteorological data.

Q. All right. I'd like you to use Exhibit 21 to summarize your conclusions regarding the cumulative impacts that would be associated with the operation of Oleander and these other power plants that you've identified.

A. Exhibit One presents a summary of the --

Q. Exhibit 21, sir.

A. I'm sorry, I thought you said Exhibit One.

Q. Thank you.

A. Exhibit 21 is a Summary of Maximum Pollutant Concentrations Predicted for the Proposed Oleander Power Project With Other Air Emission Sources. And it's presented with pollutants of sulfur dioxide, nitrogen oxide and particulate matter.

In general, what it shows is that the maximum concentration predicted when all these sources are considered in the same model are generally 50 percent or lower than the

specifically for this region, generally speaking, the two monitors measure ozone concentrations very similarly in terms of trends as well as magnitudes.

Based on the DEP workshop that was meld in May of this year, DEP presented information regarding the regional nature of ozones specifically for Brevard County, as well, and showed that for the two monitors in Brevard County, when the concentrations went up at one monitor they also went up at the other. If they went down at one, they went down at the other. The magnitudes were very same, very similar.

In reviewing the data for the other monitors in adjoining counties, the same trends and magnitudes held.

Q. Well, how do the ozone measurements here in Brevard County compare to the applicable ambient air quality standards for ozone?

A. They meet the standards, they comply; therefore, the area is in attainment.

Q. Well, given your review of the issues in this case, have you determined whether an additional ozone monitor is needed here in Brevard County?

A. Although an additional monitor can provide an additional measurement point, in terms of added value it will not determine or help in assisting in determining whether the air is complying or not complying.

Q. And I take it it would not help in determining

region and we collected data in the '82 to '83 time period by the Florida Electric Coordinating group FCG which had measured wet deposition in Melbourne. The value determined there for over a one-year period was about .2 grams per meter squared.

In evaluating deposition, you're looking at not only the wet component as well as the dry component. And typically, from literature the dry component is about equal to the wet component. So we doubled the results for the wet deposition measurement value and came up with .4 grams per meter squared.

If you take a look at the .0007 divided by the .4 gram measured, it's less than .5 percent change in impacts.

Q. So the Oleander -- the NO_X emissions from the Oleander Power Project would contribute 0.5 percent of the NO_X deposition that is -- or nitrogen deposition that is currently occurring in this area?

A. Well, again, we took the measurements from 1982 to 1983. In reviewing that data, there was some variability across the state. Because emission may have increased since that time period, if anything, the existing nitrogen deposition may be higher, therefore, our contribution to the total would be lower.

Q. You've mentioned this deposition rate. Over what period of time are you talking about?

A. The measured deposition.

Q. Well, you've talked about the calculated deposition rate that would occur as a result of this project.

A. What we looked at was, again, we used five years and we selected the point of maximum depositions. So it's a one-year average selected over five years.

We also -- in evaluating that point, typically there would be other areas which would be less than the maximum point, generally 50 percent or lower for most of the adjoining areas, including some of the adjacent water bodies.

Q. I just want to make sure I understand. This -- the amount of nitrogen that's to be deposited, that would occur over a period of one year?

A. That's correct.

Q. Okay.

A. That's correct.

Q. And you started to explain why your analysis was conservative. You said that most of the areas will not receive the maximum rate of deposition?

A. That's correct.

Q. All right, and were your other assumptions in the analysis conservative in this designed to overestimate impacts?

A. Yes, they were, sir.

Q. Given your analysis, have you formed an opinion as

case and your experience and your projections, have you formed an opinion as to whether the Oleander Power Project will comply with all of the applicable DEP statutes, rules and policies concerning the project's air emissions?

A. Based on my review and evaluations done, my conclusion is that the project will comply with all applicable air quality standards and guidelines and references by DEP as well as EPA.

Q. Will the project be able to comply with all of the permit conditions contained in Exhibit 11, which is the draft DEP permit for this project?

A. Yes, it will.

Q. All right have you formed an opinion as to whether the Department should issue a PSD permit for this project?

A. Yes, I have. I believe the Department should issue the permit.

Q. All right, sir. Now, did you prepare any of the sections in Exhibit One?

A. Yes, I prepared Section Three which is the Air Quality Review and Applicability, Section Five, Ambient Air Quality Analysis, Section Six, the Ambient Impact Analysis, and Section Seven, the Additional Impact Analysis.

Q. All right, sir, did you also prepare or assist with the preparation of Exhibits 6, 9, 10 and 13, which are the letters from Golder to DEP concerning the project?

MR. DEE: Yes, sir.

JUDGE: Okay, Department has no objection.

MR. ROWE: No objection.

JUDGE: Mr. -- all right. Exhibits -- I have 10 and 13 already in evidence.

MR. DEE: They are, sir, but I'm just trying to -- this gentleman helped with the prepping of those documents with issues that are within his area of expertise. I'm just trying to establish the predicate for the introduction of those documents.

JUDGE: Sure.

MR. DEE: And that's also true with some of the other Exhibits I just mentioned.

JUDGE: Oleander Exhibits 15 and 20 through 27 and 37 through 44 as previously identified in the record are admitted in evidence without objection. Give me just a few minutes to catch up to you.

MR. DEE: All right, thank you.

(Whereupon, Oleander's Exhibits 15, 20-27 and 37-44 were marked and received in evidence.)

JUDGE: Okay, Mr. Dee.

located site and at the same time near I -- not I-95 -- yeah, I-95 where you got carbon monoxide running up and down the road all day and these things are 11, 12, 20 something miles away, how does it pick up that kind of information so far away rather than being there and not only that you're going to build a plant that's going to be in a Title V and you have citizens that are concerned about the health and welfare and your monitors are so far away?

A. Well, first off, ozone is a regional pollutant. And it's -- for instance, for this project, ozone is not emitted directly into the atmosphere. There are precursors or there are compounds that are emitted that then form ozone.

Based on volatile organic compound emissions as well as nitrogen oxide, they combine in the presence of sunlight to then form ozone.

This process generally takes time to occur and, therefore, distance. As a result, even EPA monitoring criteria -- and that's one of the reasons why there are two monitors in Brevard County, which is only one of 23 counties in the state that has an ozone monitor and it's only one of 14 counties that has two, because of the regional nature, generally ozone monitors are separated by great distances.

And I would expect any monitor to be located at the Oleander site not to really pick up any concentrations of ozone due to the project. Simply because there would be not

many people attended the meeting on May 13, 1999?

A. On the -- what date?

Q. The second meeting on May 13.

A. I think about 20. I think about 20 were there and about 10 stayed for most of the meeting.

Q. Did you -- did the Department receive written or verbal comments about this project from the public either during or after the public meetings?

A. Yes, we did, we received quite a number of comments even before the first public meeting. Some of those comments were in the form of letters, numerous phone calls and quite a number of electronic mail submittals.

Q. Did the Department consider those comments before the Department formulated its decision in this case concerning the permit application?

A. Yes, we did consider those comments and those comments were discussed with, with Oleander and, certainly, those comments had quite a bit to do with Oleander reducing its fuel oil hours from 2,000 to 1,000.

Q. And based on your experience in general and your work on this project, have you formed a professional opinion as to whether the emission limits and control technologies proposed by Oleander in this case represent the best available control technology for the Oleander Power Project?

A. Yes, for this type of project, the limits on gas

are the lowest that I've heard of in the country for what's called an attainment area operating as a simple cycle project. For oil, they're equal to the best available control technology.

Q. Have you formed a professional opinion as to whether the Oleander Power Project will cause or contribute to violations of any state or federal ambient air quality standards?

A. Yes, I have.

Q. And what is your opinion, sir?

A. That the Oleander Project will not cause or contribute to any violation of a national ambient air quality standard or allowable increment.

Q. So it will not cause or contribute to a violation of any applicable PSD increment?

A. Yes, sir, that's correct.

Q. Have you formed a professional opinion whether the Oleander Power Project complies with all the DEP applicable statutes, rules, policy and guidance concerning air quality issues?

A. Yes, I have.

Q. And what is your opinion?

A. That it does comply with all applicable rules and regulations.

Q. When DEP reviews a PSD permit application, does DEP

evaluate environmental justice issues?

A. No.

Q. I'd like you to take a look at Exhibit 32, which is a letter from DEP to Mr. Rowe.

A. Yes, sir.

Q. All right, does that Exhibit accurately reflect the Department's position with regard to environmental justice issues in PSD permitting cases?

A. Yes, it does. It was prepared by our office general counsel and it is my understanding it is the Department's position on the matter and rules.

Q. All right, sir. When DEP reviews the permit application, does DEP review the impact of the project's airborne emissions on water quality?

A. No.

Q. Does the Department have any rules or other criteria to use for evaluating environmental justice issues or the water quality impacts associated with airborne emissions?

A. There are no rules at all for environmental justice. You can look at impacts on water quality from the standpoint of the impacts of the control equipment that is applied to minimize the air emissions. If that control equipment itself has an impact on water quality or solid waste, then you can take that into consideration. But not

Q. Has the Department received reasonable assurance that Oleander will be able to comply with all the emission limits and permit conditions contained in Exhibit 11?

A. Yes.

MR. DEE: Your Honor, at this time I'd like to move the following Exhibits into evidence.

JUDGE: Go ahead.

MR. DEE: Exhibits 2, 3, 4, 5 7, 8, 11, 19 and 32.

JUDGE: Mr. Goorland?

MR. GOORLAND: No objection.

JUDGE: Mr. Rowe?

MR. ROWE: No objection.

JUDGE: Oleander's Exhibits 2, 3, 4, 5 7, 8, 11, 19 and 32 are admitted in evidence without objection. I already have 7 and 8 in.

MR. DEE: Wonderful.

JUDGE: So they're in.

(Whereupon, Oleander's Exhibits 2, 3, 4, 5, 11, 19 and 32 were marked and received in evidence.)

JUDGE: Go ahead, Mr. Dee.

MR. DEE: I have no further questions for this Witness.

the 13th. The meeting that was advertised April 8th was a meeting that was held prior to.

JUDGE: Okay, it's relevant and material, why is it relevant and material, to what standard and requirement?

MR. ROWE: I think it shows a concern on the part of the citizens that they were not aware of the meeting and that the Chairman of the Board as well as other citizens did write correspondence to that effect.

JUDGE: Anything further, Mr. Dee?

MR. DEE: This line of questioning is not relevant to whether the Applicant has complied with the applicable standards so it's irrelevant and --

JUDGE: The objection is sustained. Ask your next question.

MR. ROWE: I have no further questions. Your Honor, if it's possible, these are some of my exhibits --

JUDGE: Do it in your case in chief.

MR. ROWE: Sir?

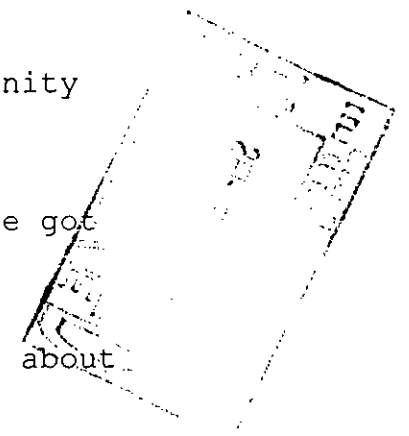
MR. ROWE: Yes, sir.

JUDGE: Responses to Request to Produce?

MR. ROWE: Yes, sir, I think so.

JUDGE: So Petitioner's Three is an exhibit consisting of Petitioner's Answers to Interrogatories, Petitioner's Responses to Request for Admissions and Petitioner's Responses to Request to Produce.

Mr. Dee, have you had an opportunity to review Petitioner's Three?



MR. DEE: I'm not sure that we've got an accurate description of Three. I thought when Mr. Rowe started to talk about his deposition --

MR. ROWE: Well, this is --

MR. DEE: -- and the exhibits that were attached to your deposition --

MR. ROWE: That's what I thought I did.

MR. DEE: Well, there are no Answers to Interrogatories or Requests to Produce attached to it. I have no objection to Mr. Rowe's deposition going into the record, if that's what he's trying to introduce.

MR. ROWE: Uh-huh.

MR. DEE: So attached, Your Honor.