STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re: Intent to Issue PSD Permit
City of Tallahassee
Purdom Generating Station

PUBLIC MEETING

Crawfordville Elementary School

Crawfordville, Florida

October 30, 1997

7:00 p.m.

Tape transcribed by:

CLARA C. ROTRUCK

Court Reporter

P R O C E E D I N G S

MR. RHODES: There are some cards, little blue slips, and I'd ask if you would fill one of those out and hand it to the lady right at the back.

I see a number of folks coming in, so I'm going to wait just a minute until most of them get in.

I especially would like to thank Jim Dugger, principal of Crawfordville Elementary School, and his staff for providing the facilities tonight, and also Alan Harvey and the Crawfordville Volunteer Fire Department for helping us with the chairs and the tables and getting us all set up.

This public meeting that is here tonight is being requested by the Wakulla County Board of County Commissioners pursuant to Chapter 403.508, section (8), Florida Statutes, and before I get into that, let me introduce myself. I'm Howard Rhodes. I'm the director of the Air Resource Management Division of the Department of Environmental Protection.

The purpose of the meeting here tonight is to take public comment on air issues as they relate to the prevention of significant degradation, which is otherwise known as PSD, permit. That permit occurs after a decision is made by the Cabinet on site certification.

This discussion tonight is on a City of Tallahassee construction of Unit 8, a 250 megawatt natural gas fire combustion turbine and heat recovery steam generator at the Purdom generating station in St. Marks.

Now, if there are discussion items beyond air quality issues, those will be covered at the site certification hearing which is going to be held November 18th at St. Marks.

Now, that covers a plethora of sins. It covers water, siting, land use, and a number of things like that, whereas the meeting here tonight is strictly an air quality type meeting.

Tonight the Department is going to receive both oral and written comments. At the door we had the comment cards that were on blue paper. If you do want to speak, please fill one of those out and the lady at the back, Kim Tober, will hand that to me, and I'll recognize you.

At the conclusion of the Department's presentation today, we will then have comments that come from the public, and then we will consider those comments whenever the permit finally comes up for issue. That determination will not be made until a determination, affirmative determination is made by

the Cabinet.

Now, what I'd like to do is I'd like to introduce the Department personnel who will be giving the presentations tonight.

Chip Collette is the Department's attorney. Chip? And he's going to talk about certification under the Florida Power Plant Siting Act, and he's going to explain a little bit about permitting and certification from a legal point of view. He's the Department's attorney for siting of power plants and the provisions for public interaction in this process.

I think first of all I'm going to recognize Chip. He's going to kind of go through that process, and then what we'll do is go through some of the technical presentations and then I will be taking some comments.

Chip?

MR. COLLETTE: Thank you, Howard.

Maybe I ought to talk into this anyway. If it's too loud -- I've been accused of being too loud.

In where a power plant is being built or, as in this case, adding generation, generating capacity, it's required to have a permit to operate, and that's called certification. You can go through individual

certification or you can go through a certification process.

The certification proceeding, itself, will start on November 18th, and at 7:00 p.m. on the evening of November 18th in fact we'll be in St. Marks at the Armory, I believe is where the certification hearing is. We will have a public comment portion of the certification hearing, and at that public comment portion, at that public comment portion, most any comment with respect to concerns for or against the plant or the additional generating power can be received.

What this process is here tonight, while we in the state can permit or as you in the county can permit, there are federal permits under the Clean Water and Clean Air Act. The Clean Water Act is not involved with the Purdom project; the Clean Air Act is. The federal government has to be satisfied that what's coming out of the stacks is not going to cause significant deterioration of the clean air that we enjoy in this part of Florida. We have great air up here.

And that federal permit process, why we're all here from the Department is that federal permit process, and we're in the public portion of that, is

the federal government has delegated to the state of Florida -- good evening -- has delegated to the state of Florida the power to administer that federal program, but the state, itself, in the certification process, cannot say, no, you don't need a federal permit. The feds get to say whatever they want; we just happen to be able to run their permitting program.

So we're here tonight to hear about the air quality and air quality issues. However, any comment you want to make will be noted. If it relates to air quality, certainly our staff will take them back and -- staff will take them back and incorporate them into their final comments for considerations with respect to permit. The same thing will happen at the certification proceeding, the public hearing, which is much farther. The certification considers everything. The certification considers flood possibility, hurricane possibility, water issues, land issues, air issues, it considers these things as well, and those comments -- standing at the back of the crowd, if you'd raise your hand, is Hamilton, is Buck Oven, who is director of the Office of Siting Certification, and he and I will be at that certification hearing starting on November 18th on behalf of the Department,

and I doubt if we'll see any of our air people there, because principally this process has been looking at the air issues. They may, but I doubt it, so I just want to welcome you.

The process is built and the law is built to really allow these public hearings, both in the federal area and in the state, so that there is input.

The purpose of the law, and there are a lot of stupid laws and I can tell you that as a lawyer, to be honest with you -- I wish I'd have gotten out of my tie before this. I was born and raised in a small country town -- is -- there are a lot of hearings and a lot of public hearings go into it, and that's something I'd agree with, because I think that citizens and people need to have input and need to have a say, and with that, Howard, is there anything else you think I can add to this? I'll be here to help you.

MR. RHODES: Thank you, Chip.

Our next presentation, and we're going to try to keep these fairly short, are going to be technical in nature. Hopefully what we'll be able to do is give you a real quick overview as what's being proposed, and that way you'll have some insight into what we're looking at.

The City of Tallahassee has prepared a number of charts all around in back, and perhaps a number of you have had a chance to look at those already, but with that I'm going to introduce Al Linero, who is the administrator of Use Source Review Section, who is in charge of this particular type of permit, and he's been reviewing this proposed permit for some time now.

Al?

MR. LINERO: Thank you, thank you very much.

The City of Tallahassee submitted an application to construct a 250 megawatt bi-cycle electrical power unit at the Sam L. Purdom power plant in St. Marks, Wakulla County. The location is about four-tenths of a mile northeast of the St. Marks Wilderness Area.

The main unit is a General Electric MS 7231 FA gas fired combustion turbine, which directly generates 160 megawatts of electricity.

A separate heat recovery steam generator will use the waste exhaust heat and the gas turbine to make steam. The steam will be used to generate an additional 90 megawatts of electricity in the steam turbine generator.

The project includes a new 200-foot stack and cooling tower. Existing conventional steam units

known as 5 and 6 will be shut down. The key air emissions will consist of nitrogen oxides, sulfur dioxides, particulate matter and carbon monoxide. Air pollution control will be accomplished through dry low NOx combustion burners which will use clean natural gas and low sulfur diesel oil as a backup.

When we shut down the units 5 and 6, the allowable emissions will be substantially below the previous permitted air emissions for the entire facility.

The City has also requested a cap on emissions, so that the actual sulfur dioxide and nitrogen oxide emissions will be no more than the combined total over the last two years. This is despite a significant increase in power generation. The details of the emission limits and control technology will be discussed by our next two speakers.

The Department of Environmental Protection is the permitting authority for the air construction permit under Chapter 403 of the Florida Statutes, Chapter 62-4, 62-10 and 62-12 of the Florida Administrative Code; and our delegation of authority for the heat unit and prevention of significant deterioration of air quality under 40 CFR 52.21U.

MR. COLLETTE: I've got all of that written

down.

MR. LINERO: Yes. Okay.

This permitting review was conducted concurrently with the site certification review under the Power Plant Siting Act. However, a final action on this permit application will not occur until after the Governor and Cabinet has considered the entire project.

The DEP Bureau of Air Regulation in Tallahassee received a four-volume site certification application from the City on March 17 of this year. I saw a copy of it back there. We distributed the air permitting portion to the EPA Region 4 in Atlanta, the Department of Interior's Fish and Wildlife Service Air Quality Branch in Denver, our DEP Northeast District Office in Pensacola.

The City also copied and invited comments from the USDA Forest Service and the Refuge manager at St. Marks.

The technical evaluation and preliminary determination as well as a draft air permit are complete, were completed and sent to the applicant on July 1st, along with the Department's intent to issue.

We have copies back there which you're free to take with you.

We provided copies of our conclusions to the previously mentioned agencies. We also made copies available for public inspection at our offices in Tallahassee and Pensacola.

The Department's Notice of Intent to Issue was published by the City in the Tallahassee Democrat on August 7th of this year, provided a 30-day period for anyone to submit comments under the Department's proposed action or to request this public meeting.

It also provided a 14-day period for anyone whose substantial interests were affected by this project to file a petition for an administrative hearing.

We have not yet received comments in response to the public notice, except for the request by Wakulla County to hold this public meeting.

We noticed this public meeting on September 25th and October 23rd in the Wakulla News, and on September 30th and October 28th in the Tallahassee Democrat.

The City also noticed the open house twice in each newspaper. The open house is the activity taking place behind the easels.

Copies again of the intent to issue are available. If we run out, we'll be happy to make you copies and send them to you if you'll give us your address.

The application and the entire file will be available for public review and copying in our office in Tallahassee, and we'll accept additional comments today until next Friday, November 7, 1997.

I will be accepting comments and considering them specifically relating to the air emissions and control. Any comments that are submitted here and over the next week, those comments as well as the recommendations of the administrative law judge in a separate site certification proceeding and, of course, the decision of the Governor and Cabinet will be reviewed when issuing a final PSD permitting decision.

What I have here left over, this one is a handout. You submit comments here, or you can send them to me, Al Linero, administrator of the New Source Review Section, the Bureau of Air Regulation, 2600 Blair Stone Road in Tallahassee. I have left my phone number there, my FAX number, my Internet address and a handy-dandy list here of agency contacts which include the Air Permitting professional engineer, Marty Costello, the meteorologist and modeling expert, Cleve Holladay, compliance personnel as well as the legal contact.

So, you know, take a copy, if you wish to make additional comments if you don't make them tonight,

and if you mail them or get in touch with me, I'm sure we'll consider them.

Thank you very much.

MR. RHODES: Thank you.

In the interests of time I'm going to go ahead and introduce our next two speakers. The first will be Marty Costello, who's going to go over the issue of best available control technology. Any type of facility that's built today has to have the best control technology available on that facility before we can permit it. He's basically been in charge of that responsibility.

Secondly, Cleve Holladay will be giving a summarization of the air quality, the impact of the facility on the air adjacent to the plant.

With that, Marty?

MR. COSTELLO: I don't have a speaker in my hand, okay.

MR. RHODES: Here's one.

MR. COSTELLO: I can do that. Is that better? Okay.

My name is Martin Costello. I work for the Bureau of Air Regulation. I was the engineer of record on this project. I evaluated the best available control technology for this project.

Al Linero talked about the equipment that they're going to install, the gas-powered combustion turbine, and it produces the bulk of the power, 160 megawatts, and then the exhaust gases drive a steam generator that generates an additional 90 megawatts. There's no additional combustion, it's just using the waste heat from the combustion turbine. This kind of unit looks a lot like a jet engine on an airplane.

A VOICE: A little bigger, isn't it?

MR. COSTELLO: Yes, a little bigger, and a little bit heavier, it won't fly, but it's the most efficient way to generate megawatts that's commercially available, and it's a pretty large unit for a combustion turbine. There's only one class bigger than what's going to be installed here.

The technology to control air emissions is dry, low NOx burners which burn natural gas. This is an approach that can give emissions of -- nitrogen oxide emissions, very low. When they're powered with fuel oil, their emissions are a little bit higher and they're using water injection to control nitrogen oxides.

The primary fuel is natural gas. It's about half the cost of fuel oil, so there's -- when they can fire gas, and I think that's most of the time, they're

going to be firing gas. It's cheaper.

Good combustion process will minimize other emissions, products of incomplete combustion like carbon monoxide, and then sulfur dioxide will be minimized by firing low sulfur fuels, natural gas and low sulfur diesel. That would also minimize particulate emissions, which are a function of sulfur content in the fuel.

These are the emission limits that are in the permit currently, 12 p.p.m., and they're going to have continuous emission monitors on that. That's the lowest emission limit of any permitted power plant in the state. There's only one other one with a number that low, and the rest are higher than that.

Carbon monoxide, CO, is permitted at 25 p.p.m., and that's the worst case. Typically at full load they'll will be less than half of that, so it's a very low-emitting unit for COs.

Visible emissions, 10 percent opacity. You may not be familiar with that term, but basically, you won't be able to tell it's running at that low level of opacity.

And then the other pollutants, sulfur dioxide and particulate matter, are going to be minimized by firing just premium fuels that have very little sulfur

in them.

If anybody has any questions along the way about the equipment or the limits, feel free.

A VOICE: Let me ask about the opacity. How is that measured, on a one meter scale with a light that determines --

MR. COSTELLO: Yes. They're not going to have an opacity monitor like you're describing, it's not required. Department representatives are certified to read opacity. You can actually look at a stack and, if you're certified, if you've gone through the training, you can make a determination of what the opacity of the stack is. That training is pretty extensive. Every six months you have to get an update and you actually go and look at stacks, if they have a generator of smoke, they calculate or eyeball every six months, but there's no need for an opacity monitor on this type of a unit that's only firing premium fuels, which is not much smoke. Like I say, you won't be able to tell it's running by looking at the stack.

Are there any other questions on the emission limits?

Okay.

Those emission limits and the technology that they're using to control the emissions constitutes

best available control technology. There's two additional things the City has requested and we put them in their permit, although they're not required. They requested an emissions cap of annual emissions of nitrogen oxide and sulfur dioxides to prevent any increases in these emissions, and that's a pretty tough thing to do when the previous emissions were based on a power plant that was only putting out 100 megawatts, and with the new unit it's going to be about 300 megawatts, yet they're not going to increase emissions of these important pollutants, and part of the way they're doing that is they're shutting down two older boilers that currently run.

And that's all I had. If anyone has any additional questions, you can grill me.

A VOICE: Is the increase in megawatts from 50 to 250 or some other number? The documents say 50 to 250, you're saying 320. Which is it?

MR. COSTELLO: I'm talking about the entire facility currently puts out, what is it, 112 megawatts, is that right? And after the new unit is installed, it will be about 300 or just over that, so it's about tripling the amount of electrical output, yet emissions won't change, they won't increase.

Any other questions?

Okay.

MR. HOLLADAY: I'm Cleve Holladay and I'm the air modeler for the Air Resources Management Division in the Permitting Section.

Air quality dispersion modeling was done for all pollutants that were emitted -- that are expected to be emitted by this project, and I will -- what goes into this modeling, it's computer modeling, it's meteorological input, stack parameters like emission rates, stack heights; and based on these modeling runs, we try to estimate the maximum impacts predicted not only for this project but all sources located within 150 kilometers of the project, so I'm going to summarize the results of the key pollutants, and I'll start with sulfur dioxide.

We have three different standards. We've got the ambient air quality standard which protects public health and welfare, and then the Class II and Class I increments which protect clean air and -- the Class II would protect the clean air within the vicinity of the facility, except in this case the St. Marks National Wildlife Refuge is extremely close, less than a mile away, so the more stringent increments from the Class I area apply. This is a sensitive area, so this project would have to meet those.

As you can see, all the numbers are well below the standards of increments, and actually this, these numbers here include all of the sources within 30 to 50 miles.

The Purdom project, itself, is practically, is less than two percent in each case here, so it's a very small amount.

This is the PM impacts. Again, the PM numbers of the project are much, much less than these numbers. They include all sources.

Okay, the blue, the blue represents the all sources impact and the yellow is the standards.

These are the nitrogen dioxide impacts. Again, these numbers are well below the standards and increments.

And then carbon monoxide and lead do not have increments, they have standards only, and most of the numbers here, the 8153 and the 5307 have to do with mobile sources, just monitoring values, and again, the project's impact is very small.

That concludes my presentation.

A VOICE: Mobile service sources, do you mean (INAUDIBLE)?

MR. HOLLADAY: Yes. Yes.

MR. RHODES: Just for those of you that may not

know, the M is particulate matter, little small particles, and those are the general criteria which would measure some of the air quality that may be coming out of some of the stacks.

Tonight I would like to recognize any elected officials. Commissioner Stewart, glad to have you here, glad you could make it out. Are there other elected officials here?

A VOICE: (INAUDIBLE).

MR. RHODES: Commissioner Long, we're glad you could come out tonight. Thank you very much.

A VOICE: The mayor, Chuck Shields of St. Marks is here.

MR. RHODES: Mayor Shields, of course. That goes back several years, but I was serving in a different capacity and the mayor was trying to get a wastewater plant in St. Marks and we spent many hours together. It's good to see you again.

I only have three people who have requested to speak tonight. If there's any others, please fill out a little blue slip in the back.

The first speaker I would recognize is Commissioner Stewart.

COMMISSIONER STEWART: I didn't ask to speak. I'm just here collecting some facts.

MR. RHODES: Would you like to make any comments, Commissioner?

Mayor Shields?

MAYOR SHIELDS: I'd just like to offer our support, since the City of St. Marks will be the really closest neighbor and have to look at all the, the air pollutions and the standards of what's emissible -- or permissible are so much the (INAUDIBLE) we feel like the air quality here we have now with the generating plant the way it is, we feel like the new plant won't increase or decrease any pollution.

MR. RHODES: Thank you very much, Mayor.

And Mr. Ed Mills?

MR. MILLS: Is it okay to ask questions?

MR. RHODES: Oh, please do.

MR. MILLS: My name is Edward Mills, IV. I'm with the Wakulla County Planning Department, I'm planning director for the county. I guess you know we're opposed to the plant, but you know how rumors are. The rumor that we were going to stuff a mullet in the mouth of anybody that was in favor of the plant is completely unfounded. We'd never do that with mullet, never.

A VOICE: We had one down at Spring Creek just a

little while ago. It was real good.

MR. MILLS: Let me jump into the front end. Under the summary, I understand that the last line here, you're saying that with this new generating capacity that there was not going to be any significant increase in the emissions of air pollution, but yet in the back we're describing this as a significant contributor of air pollution. I'm just unfamiliar with how we jump from that it isn't to where it is. As I see it, there's about a 500 percent increase. Apparently that's not significant. I don't know, I'm asking the question, if anybody can help me with that.

MR. LINERO: Okay. Well, significant, significant in one context. It's significant in that we would take notice in that we would have to model a particular pollutant. These are the obvious pollutants, that's the meaning of "significant," the first meaning.

The second one is simply from a legal point of view, within the context of something called prevention of significant deterioration, and that's, that's a, that's a very specific amount of pollution, and "significant" means something very different there. It means typically numbers like one-fourth of

what the ambient air quality limits are.

So we have two contexts, significant in that I'm thinking of controlling sulfur dioxide, nitrogen oxide, carbon monoxide, particulate matter, okay. Significant in the second context is a 25 percent of the standard of (INAUDIBLE), roughly speaking.

A VOICE: What you're saying, Al, you just got ahold of the word significant and changed its meaning?

MR. LINERO: And some other words.

MR. RHODES: Let me make sure if I can reinterpret your question because I didn't know whether you got the answer you were looking for.

You indicated that there was a 500 percent increase in something?

MR. MILLS: Just taking a round shot at it, I was trying to add up the percentages, I realized some of them are in parts per million per day, per week, per year, per month, annually. Some go back to it monthly. I got lost, maybe, maybe that's just me, but it looks like that there's actually an increase in most of these things, and further back in the book, it identifies the plant as a major or a significant polluting -- pollution-generating facility.

MR. RHODES: Let me, I think I can address the

latter.

If a source is above a certain limit, irrespective of anything, how clean it is, it's determined to be significant in terms of the size of the source, so that's how you can determine significant.

Now, on the other question that is there, I was under the impression that we're not talking about those changes, other than what the existing source was. Is that correct?

MR. COSTELLO: I think you have to look at what pollutants you're talking about. There are, I think, two pollutants that are projected to increase slightly above the current plant's emissions. That's carbon monoxide and particulate matter.

MR. MILLS: Sulfur dioxide, too, or --

MR. LINERO: No. Like I mentioned before, the City has requested a (INAUDIBLE) cap on emissions of what I would call the major pollutants, sulfur dioxide and nitrogen oxide, so they won't go up at all from the description in the permit that I have here.

MR. MILLS: Down in Section 1.2, it quotes that, "The plant was built in 1952 but it has operated infrequently in recent years." Are we basing that determination on the fact that the plant hasn't been

running or what it's permitted to generate?

MR. LINERO: We based the limit from they cannot recede on emissions that they actually put out, I think it's two years.

MR. MILLS: I was just trying to figure out if the comparison was to what was, what was actually permitted to be dumped into the air and what is actually being dumped in the air on a -- let's say an annual basis now with this thing running infrequently, or are -- are we comparing apples to apples or apples to oranges?

MR. LINERO: I think it's apples to apples. We're comparing what the actual emission cap is with what they will be after the new unit is installed, so they're not going to increase NOx or SO2.

MR. RHODES: Yes?

A VOICE: Sir, if I may add, one of the things that they're going to do, for example, on sulfur dioxide, the present limit is about 9,000 tons per year, and in the past two years, they've emitted about 80 tons per year because they've been running these units so infrequently and using cleaner fuels than they're allowed to. What they're committing to is that in the future they will not even be allowed to go up above 80 tons per year, so the permitted emissions

will come way down and their actual emissions will stay about the same on SO2 and on nitrogen oxides.

MR. HOLLADAY: I've got a slide that shows this, basically. The blue is zero, it's the current allowables, and the red represents the historical actual, which is the last couple of years, and then the future allowable here on the NOx will be capped at 467, and on SO2 at 80, so there's no increase.

MR. RHODES: Pull it up a little bit and make sure everybody can see you.

MR. HOLLADAY: Okay, up this way?

A VOICE: Yes.

MR. HOLLADAY: The other way?

A VOICE: All right.

MR. HOLLADAY: Can y'all see that?

A VOICE: Okay.

MR. MILLS: Still on that first page, I see where we have some, some hydrocarbons, fugitive dust and what have you that's going to be coming from vehicles and heavy equipment. We're going to use various methods to make sure that the emissions or the dust are held down. Maybe I missed it, but I didn't see where or how that, that spraying, whatever we're going to be using to hold that dust down, is going to be separated from the stormwater such that the

stormwater that's discharged into the river doesn't carry those same pollutants back to it. Is that, do you feel comfortable with the way that has been addressed in the submittals so far?

MR. LINERO: Those emissions -- I assume you're talking about during construction?

MR. MILLS: Yes.

MR. LINERO: Truck traffic and so on?

MR. MILLS: What have you.

MR. LINERO: I think will be relatively minor, it's just temporary. They will be doing it, I don't know how long, a year or so during construction. (INAUDIBLE) dust whether they spray the roads down, whether that makes into the river, it's probably insignificant.

MR. MILLS: On the top of the second page where you have, "Increased hours of operation due to lower fuel costs will not significantly increase the total emissions," I was wondering if you could explain that sentence to me, how the cost is going to get to the emissions standards.

Castillo MR. ~~LINERO~~: Power plants are dispatched based on -- this is a little bit out of my area of expertise, if I have one -- but as I understand it, power plants are dispatched based on the cost to generate a

megawatt of electrical power, and if you can generate megawatts more cheaply than another plant that might have a more expensive fuel, that you will be able to sell your power until the demand becomes sufficient to, for that more expensive plant to come on line, so you'll, you'll sell all the power you can generate at that point, because you're cheaper.

MR. MILLS: Yes, sir.

MR. LINERO: Yes, the City knows this a lot better than I do. They --

MR. MILLS: So the cost of the fuel has a relationship to the emissions of air pollutants?

MR. LINERO: Just because it has --

MR. MILLS: Because higher priced fuel has lower sulfur, is that --

MR. LINERO: Actually, the highest priced fuel is No. 2 fuel oil, but it's got higher sulfur than natural gas, so that's not --

MR. MILLS: That would seem to contradict that statement, then.

MR. LINERO: Well, I think that because you'll use the plant more, it's cheaper to run, and the more you use it the more emissions you generate. Does that make sense?

MR. MILLS: No.

MR. LINERO: No?

MR. MILLS: No.

MR. LINERO: That's what happens.

A VOICE: Perhaps, Mr. Oven, would you be able to add to this a little bit from the power plant siting certification?

MR. OVEN: I'm not sure where you're talking to. Actually, we --

MR. MILLS: On the second page of the summary report, at the top of the page, I don't know if you have one handy here, it starts off on the page before saying, "Increased hours of operation due to lower fuel costs will not significantly increase the total emissions of air pollutants." I was wondering how running it longer on lower cost fuels was going to increase the emissions.

MR. OVEN: The fuel cost is irrelevant. You're taking out older units that are less efficient, normally less efficient, replacing them with a more highly efficient unit so you can save fuel. You're capping the emissions, you'll operate the unit more, the new unit more often, produce more electricity for the same amount of air pollution that you're emitting now, so you've got a more efficient unit, a clean unit, so you, you're thermally more efficient, you're

electrically more efficient, and you're more efficient in the sense that you're getting more hours of electricity, more megawatt hours out for the same or less air pollution.

So it's a better deal for the environment, a better deal for the economy.

MR. MILLS: I've been reading Buck's reports off and on for probably about the last seven or eight years, and --

MR. OVEN: You're actually, you're asking questions from the staff analysis report.

MR. MILLS: Yes, sir.

MR. OVEN: But these folks didn't write it.

MR. MILLS: That was yours?

MR. OVEN: Yes.

MR. MILLS: I notice in here, this report doesn't seem to track the usual course that you have with your reports. It looks like pieces of it got chopped on. Maybe that was in the printing, or --

MR. OVEN: You need to get into Chapter 3 before you get into the (INAUDIBLE) that these people wrote.

MR. MILLS: We're sticking just to the air quality stuff tonight, right?

MR. OVEN: Right, and like I say, there's a whole section in Chapter 3 of that report that these

fellows wrote, the pervasiveness of deterioration, or stuff, that is in that report, and that is what these people are responsible for. You're asking questions that are outside the scope of this hearing.

MR. MILLS: Okay. I thought we were dealing with the air quality -- and running through the summary here, it looks like this is leading up to the conclusion that this isn't going to have a major air pollution increase.

MR. OVEN: Ed, as a layman, I think I basically understand your question, and I kind of have that question, too, is -- all of you may have heard about retail wheeling which is coming some day soon. The bottom line, for an example, in another part of Florida, FP&L has a series of plants. They run -- Florida Power & Light -- they run the plants the most where they have the cheapest fuel. They have the other plants they call peaking plants that they don't run like they run on low sulfur fuel oil which is more expensive, say, than coal or natural gas, they run those when, say, it's 100 degrees outside or it's freezing and everybody is sucking power out of it, and that increases it, so the plants with the lower fuel cost, as natural gas low fuel cost versus -- and it's more efficient, in other words, say, a kilowatt hour

might be a penny versus -- I'm just giving you a hypothetical -- versus a kilowatt power being five cents, the power plant, because that savings is also passed on to the customers, and you're going to keep your customers the rate charge passes right on to us when we pay our electric bill.

The power companies, including Tallahassee, are going to run the most their plants where their fuel costs are the cheapest, because they can pass on the savings, and oftentimes in that statement you will see when they're running a change in a peak plant, peaking plant which is high load, you know, everybody is drawing electricity --

A VOICE: This facility was --

A VOICE: Well, you could say --

MR. OVEN: Ed, the purpose of this hearing is to discuss the basis of the significant deterioration permit. It's a separate permitting process from the power plant site certification process. Now, there is a parallel between the two, and they can be combined in certain cases.

There are certain portions of the PSD permit that occur in that report, but materials and conclusions in the front of the report you're reading from are not from the PSD, are not a part of the (INAUDIBLE)

resources management, so although they are valid questions, you're about two weeks premature in asking them.

MR. MILLS: Okay.

MR. OVEN: The PSD permit is based on will this facility comply with the air pollution -- the ambient air quality standards and the emissions limitations which are placed on the Department and on EPA. It also has to be demonstrated that they're utilizing the best available control technology, which is part of the PSD process, so energy efficiency, things of that nature, would only apply if you were trying to really decide which air pollution control technology would apply to this power plant.

There is a process where the Department would have to consider the cost of the air pollution control equipment, the efficiency of the air pollution control equipment and the overall cost as it might impact the project.

When we start talking about other factors as far as, let's say, the site certification desirability of the facility, that is beyond the purview of the PSD permit. That's why I said, you're a little ahead of yourself. From a PSD point --

(End of tape 1, side 1.)

MR. MILLS: -- that report, then, which, reading through the Agency comments, the 2.3 section, as I understand it, DCA has made a recommendation for approval for the project subject to conditions to bring it into compliance with the State Comprehensive Plan.

MR. OVEN: That's possible, sir, but that's not a part of the PSD permit.

MR. MILLS: Even though it's part of it?

MR. OVEN: No.

MR. MILLS: No.

MR. OVEN: The PSD permit is a separate permitting act than the site certification. It will be granted only after certification is granted. If certification is denied, then the PSD permit goes away.

I think you're referring to the Agency analysis?

MR. MILLS: Yes, sir.

MR. OVEN: That's actually a certification report for the certification process. It's not -- it has air issues contained in it because there has to be coordination with air on the PSD, but that's actually not a PSD report. The notice of intent to issue PSD permit would be what really would be the substance of this proceeding, so the air section in there has the

PSD issues because we have to consider air issues in the certification process as well, but that is a certification report rather than a PSD report.

MR. MILLS: So, in other words, jump out of that front section, jump back to the air quality impact section?

MR. OVEN: That would probably be better, correct.

MR. MILLS: There again, under 432 under the facility category, that's the part where I was telling you, the Purdom power plant station is classified as a major air pollution emitting facility. That was, that's how I was drawn back to that other statement. The statement up front says it is not, but yet this one says that it is. Therein was my question, how we made that, that leap.

MR. OVEN: I think as Howard tried to indicate, you have different categories of sources, and a source that emits or has the potential for emitting more than a certain tonnage of air pollutants is considered a major source, and therefore is given a particulate permitting scrutiny in review.

MR. MILLS: I see.

MR. OVEN: It has its own special meaning for that particular area. In this case the Purdom unit is

a major air pollution source under the federal definition of air pollution sources.

MR. MILLS: And I notice under the rule applicability where it talks about which rules apply to the air pollution and whatever, it states that Wakulla County is an area designated as an attainment area for critical pollutants. Would you explain what that statement means to me?

MR. OVEN: Sure. Howard, do you want to --

MR. RHODES: I'll start. There's ways of determining whether or not an area meets standards. If an area does not meet standards, it's determined to be non-attainment. Any other area is determined to be an attainment area.

We have no non-attainment areas in Florida, so Wakulla County is a part of the massive whole of Florida that is in the attainment category.

MR. MILLS: Now, do you gather up credits for attainment, is that --

MR. RHODES: No.

MR. MILLS: If you have a facility that's real clean and one that's real dirty, do you get air quality --

MR. RHODES: No.

MR. MILLS: -- attainment?

MR. OVEN: Ed, to answer your question a different way, if your attainment -- if air quality in that county is equal to or cleaner than ambient quality standards, Wakulla County, you're cleaner than the ambient air quality standard, based on -- to my knowledge. It has nothing to do with the facility itself; it's what people out here breathe.

MR. MILLS: Well, that's where I'm coming from. I have folks telling me that the air isn't clean enough for them now. I was wondering how, when they put in a power plant that generates more, it's going to make that better. It's just a question.

Whenever we get back over into the BAC determination, under the general impact analysis on page 16, we're talking about even with the BAC being in place, it will exceed allowable rates? Can you, can you shed a little light on that subject?

That's dealing with air quality and that's where I was coming from with the credits routine. I didn't know if there was some increment of air quality that we were using up or if we were using up something that's allocated as an excess in another area, or how we were --

MR. OVEN: I'm not sure what your question is totally, now. We're talking -- in Wakulla County

where the air quality is cleaner than standard, the prevention of significant deterioration rules and regulations say that you can only degrade that air quality so much. There is a certain increment you're allowed to degrade, you cannot exceed that increment, and that is something that Mr. Holladay and the people in the Bureau of Air Regulation have reviewed and determined that this particular power plant, because of the shutdown of the old sources, the replacement with this new Unit 8, that the air quality impact increment consumption is very little and within the allowable increments. I think they have some charts that illustrate that, and they're not due a credit from anywhere else.

MR. MILLS: Okay.

MR. OVEN: There are --

MR. MILLS: It's an allowable area that you're allowed to get it up to --

MR. OVEN: It'll never get, the cleaner the standard, you can never get up to the standard. If you're using something that's called emission credits and this deals with other power plants in other areas that are apart and existing, I -- that doesn't apply here.

MR. MILLS: That doesn't apply?

MR. OVEN: No.

MR. MILLS: Thank you.

We were also talking about the oxides and nitrogen and the BACT, best available control technology, is what we're going to be using to scrub these things out, but yet the BACT that we're going to be using on this facility is not the primary, not the top rate, we're going to take a step down from that. In other words, by taking that step down, we're still going to be able to produce clean air, we're not going to dirty it up to the point where we're exceeding that increment?

MR. COSTELLO: I think I can answer that. There is a technology for controlling nitrogen oxide emissions that can get you a little bit lower than the dry low NOx burners. There are some trade-offs, though. There are other emissions. You have to inject ammonia, there's some ammonia (INAUDIBLE). There are some trade-offs and there are some big cost differences, and the Department made the determination that dry low NOx burners is best available control technology for this project.

MR. OVEN: This is where you get back at the economics. You can put something like the equivalent of a catalytic converter on the unit. It's a very

large catalytic converter and you do use ammonia, which means you then have to ship a hazardous substance into the city of St. Marks in order to operate this chemical factory equivalent back in the power plant. It costs a lot to do that, and the cost for the tons of pollutant that we remove by putting it on this that we feel are not warranted in this case; that the dry low NOx burners will achieve an acceptable low level of nitrogen emissions and they are affordable. This is where some economics are looked at by the Bureau of Air Regulation as it applies to the air pollutant control technology.

A VOICE: These low NOx burners, you had mentioned earlier that you use some kind of water -- what was the term you used, water --

MR. COSTELLO: There's water injection when they're firing with fuel oil, basically diesel.

A VOICE: What kind of water? Fresh water from the river, or --

MR. COSTELLO: Fresh water.

A VOICE: Will that still be used if we use this other method? Obviously, it emits lower emissions.

MR. COSTELLO: No, no. In fact, it's a small quantity of water. Whenever they have to fire the diesel, the dry low NOx burners are not effective for

reducing NOx for that fuel, so they have to the use water injection.

A VOICE: When the diesel is working?

MR. COSTELLO: When they're firing diesel.

A VOICE: But not --

MR. COSTELLO: When they fire natural gas, it's dry low NOx burners, it doesn't use any water, it gives much lower emissions.

A VOICE: What's the likelihood of having to fire diesel?

MR. OVEN: It will happen on certain rare occasions when you have some very cold weather and domestic customers are utilizing natural gas for home heating, things like that. They have first priority, and industrial customers could be bumped off of natural gas. In that case, it's kind of a (INAUDIBLE) decision, in that case they would then switch to oil.

A VOICE: But the emissions would go up considerably?

MR. OVEN: Emissions will go up slightly, yes, when that happens, but generally you get bumped off from natural gas probably -- maybe two or three, four days in a year's time, if that. I mean, it's -- it's a rare occurrence if it does happen.

A VOICE: So the justification, then, for going

to the second best technology is, and you're quoting here, "The total levelizing of cost is estimated at 1.5 million per year for 20 years resulting in an incremental cost effectiveness of about $7,225 per ton of nitrous oxide removed. This incremented cost effectiveness value is considered higher than those determined to constitute BACT for other projects in Florida of a similar nature. Therefore, SRC is deemed to be too expensive for this application."

What -- you're comparing it to other projects in Florida, and it's, it's been a kickout at a cleaner rate than what the other projects in Florida are, but yet it's going to have some adverse effect to it?

MR. COSTELLO: I think I can address that.

Power plants similar to this one that have combustion turbines, generally dry low NOx are used, that's the state of the art for this type of power plant. There are no power plants of this nature that have what you're talking about, SCR, selected catalytic reduction.

There's two large coal-fired units in Florida that have them. They came on line in the last three years or so.

MR. OVEN: Actually there are three.

MR. COSTELLO: Three years ago?

MR. OVEN: No, no, three plants. Cedar Bay and OUC and (INAUDIBLE).

MR. COSTELLO: Cedar Bay is (INAUDIBLE).

MR. OVEN: (INAUDIBLE). It's --

MR. COSTELLO: What I'm saying is there's no precedent in Florida for firing SCR; in fact, there are some drawbacks in terms of other emissions that you'd want to consider before (INAUDIBLE) technology. We have it in Florida.

MR. MILLS: The concern that we're, that all of this is stemming from is, you know, the wind is here in the community generally from the southwest to the northeast, so the plume of steam and whatever it carries with it is going to be traveling across Wakulla County up into Leon and then Jefferson Counties.

We're concerned that because, even though this is better than many of the other facilities, we still feel that having no facility there at all for economic reasons and for environmental reasons, seems like it would be a better idea than taking two down that were real bad and putting one up that's just a little bit bad. Why do that at all? Why settle for a second best when -- a majority of that land in between, in Wakulla County, anyway, is owned by the St. Joe Land

Development Corporation. Maybe they don't have a problem with that, but just immediately north of this, you have a 200-unit residential subdivision that's just been annexed into the city. You're going to have a bunch of neighbors that it's going to blow right across it. One of the concerns we have is they're come at us, why didn't you say something about all of this back whenever it was going through the siting program, and hence the concern.

MR. OVEN: You're really now getting into a siting issue because --

MR. MILLS: Right, it's the air pollution that --

MR. OVEN: Right.

MR. MILLS: -- that concerns us --

MR. OVEN: Well, the air pollution happens to be well within the standards, and since it's well within the standards, then the Department would recommend approval of the project.

MR. MILLS: We're still concerned that "well within the standards" is going to be adverse to both the environment and the people out in that area, even though it is within the Department's --

MR. OVEN: Okay.

A VOICE: Could I interject a question?

MR. RHODES: Yes, sir.

A VOICE: What's the comparison -- what's the cost, then, compared to $7,225 using SCR, compare that to the cost using the dry NOx removal. Compare the cost with it. What is the cost?

A VOICE: (INAUDIBLE).

A VOICE: Yes, I would guess it's close to a thousand dollars per ton. I don't know the number offhand, but it's significantly less than $7,000.

A VOICE: A thousand difference or 1,000 tons?

A VOICE: The cost is likely less than $1,000 per ton.

MR. OVEN: It's about one-seventh of the cost of the SCR system.

A VOICE: But you also mentioned that there may be some other effects from SCR, but you're proposing to use the NOx burner technology and you referenced the G.E. ZON-2.6.

A VOICE: Right.

A VOICE: Yet, it's not, it's not, it's not been currently demonstrated. How do you know what it's going to do? Aren't you gambling there?

A VOICE: You said G.E. has guaranteed an emission rate of less than nine percent parts per million for (INAUDIBLE)

A VOICE: Yes.

A VOICE: But what happens if that guarantee ain't no good?

MR. COSTELLO: The unit that's been chosen for this project is a relatively new model unit. There are two. There's one in Colorado and I think there's one in Texas. Those -- that class of unit specifically puts out about 15 parts per million. They're developing that burner technology. You know, the unit in Colorado, I spoke to G.E. this week about it, this summer they demonstrated that they can get down to nine parts per million, so I have reasonable assurance that by the time they install this unit, you'll meet a 12 parts per million limit.

A VOICE: It has to be above that 50 percent load range and all that, how do you predict that?

MR. COSTELLO: Well, these type of units particularly aren't operated below a 50 percent level. Usually they run them typically at a full load.

MR. MILLS: But the lower it runs the higher the emissions, right? It needs to run the higher --

MR. COSTELLO: No. The limit will be met throughout the range of operations, again.

MR. MOWREY: It says it will be higher at lower loads, it will be higher at lower loads. That's what your report says, that's your report. "If the energy

is based on operation above the 50 percent load rates, then emissions p.p.m. will be higher at loads below this." Now, which is it?

MR. MILLS: Our concern was how often would it be running at less than 50 percent so that we have some idea.

MR. COSTELLO: Right. Only the City can answer that. We don't restrict how they can operate the unit in terms of what load, but we could give them a limit that they have to meet whenever they're operating it, so the limit as measured by continuous emission load is 12 parts per million, so at whatever load they're at, it's got to be below that.

MR. MILLS: Does the Department do that monitoring?

MR. COSTELLO: We require installation of the monitors and we require them to report any time emissions exceed the limit.

MR. MOWREY: Are those logged somehow? I mean, is there a log reading, or --

MR. COSTELLO: Yes. Concentrations --

MR. MOWREY: How do you know if this goes out a week. How do you determine whether they go out of parameters? I mean, can a plant operator, maybe that goes a little over and they fix it and nobody ever

knows the difference? How do we know that? How many days before you have to report a, something that's out of parameters?

MR. COSTELLO: We require quality assurance of the monitor to make sure that it's reading what the actual concentrations are. Simply, dishonest things can be done and we would have to catch them, and it would be a criminal violation, falsifying records or something of that nature.

MR. OVEN: Marty, isn't it true that each of these monitors is required to have a recorder attached to it, and that there is a paper product they can be examined?

MR. COSTELLO: Yes. They have recorders so it's a written -- printed out. It's also reported electronically, and they use computers to store the data and then they can report the emissions.

MR. MOWREY: You're going to measure your p.p.m. based on a 30-day rolling average, which you specifically say excludes any malfunctions or shutdown or start-up time?

MR. COSTELLO: Yes, sir.

MR. MILLS: Or if the data is --

MR. MOWREY: That's the worst time. Why would you exclude that in getting an average?

MR. RHODES: Sir, I think this gentleman here has the floor. I'll be glad to recognize you as soon as he's through.

MR. MOWREY: I think he yielded, for the record. Certainly, I'll wait. Thank you.

MR. COSTELLO: I can answer the question, I think.

The unit is designed to produce a certain peak emission below a certain limit. In this case we've set the limit at (INAUDIBLE). It's not designed to meet that limit during transient periods, such as start-up. Really, it's just start-up. Shutdown emissions won't go up. Malfunction means something breaks, so that's -- you can't anticipate that.

I will say that if there's some way to prevent a malfunction and they didn't employ that, then it's a violation of our rules. But it -- each time they start up their emissions may exceed 12 p.p.m. It's a provision in our rules.

MR. LAWHON: You spoke earlier (INAUDIBLE) emissions. If it gets to the level of (INAUDIBLE), will they shut the plant down at that time?

MR. COSTELLO: They will monitor their emissions throughout the year, and if they've mismanaged those emissions, we would certainly have to shut down and --

MR. LAWHON: Would that be on a yearly basis or would it be like on a monthly basis or daily basis, or -- I think they're going to run 11 months and then shut down for the last month of the year. Who's going to monitor that? Is it going to be the fox guarding the chicken pen, or what -- I mean, what's the deal here?

MR. COLLETTE: I might add, it would be helpful to the court reporter if you'd state your names.

MR. LAWHON: My name is Lawhon.

MR. MOWREY: And who was the gentleman back there as well?

MR. MOWREY: I'm Ron Mowrey.

MR. COLLETTE: Oh, Ron, okay, I should have recognized you, Ron. Sorry.

MR. MOWREY: That's all right.

MR. COSTELLO: Your question was who was going to monitor the (INAUDIBLE)?

MR. LAWHON: Well, first, of course, was are they going to shut down when they reach a certain level that they want to cap?

A VOICE: They would have to, sir, they would have to -- the way the permit is written --

MR. LAWHON: If they want to be nice. Maybe something (INAUDIBLE).

A VOICE: They would shut down, and this is a good question, and, you know, we'll take that as a comment, and we'll ask, you know, we'll ask ourselves that question, ask them that question, and include in any provisions that apply in the permit an answer to that question, exactly what, what provisions there are to provide reasonable assurance that it will never exceed that cap, and we'll include that in the final decision.

That's an excellent question, but realistically, if they get their cap and it's 467 tons per year of nitrogen oxide, they would have to shut down, and our tools on that are a standard compliance assurance benefits and so forth.

MR. COLLETTE: And legally the Department of Environmental Protection has an enforcement section and tools and ability to go into circuit court, and we never have to use them because we get cooperation, but can get an injunction by the judge that says you're not operating because you're out of compliance.

But your question raises really a good example of the purpose of this type of hearing. This is something we need to consider, we need to take back and take it into consideration.

MR. OVEN: If the unit is determined to violate

(INAUDIBLE), they can be fined (INAUDIBLE) violation.

MR. MILLS: It won't necessarily stop the output, but they would be fined after the fact?

MR. COLLETTE: Well, we, in other situations we've taken dual enforcement actions when we have -- violations say in any particular enforcement area, one we've sought injunction to shut it down, but for a certain period of days there have been violations and secondarily imposed administrative fines as well. Usually dual course; we go in, you've already been in violation two or three or four days in a week, and by the way, Mr. Judge, Circuit Judge, shut them down, we're not going to let them run any more, so you won't -- so you get a double.

MR. MILLS: The concern maybe from these folks was our emergency management director tells us there's been a couple of spills at the site that were cleaned up after the fact and nobody heard about it for a while afterwards. We're concerned about that same scenario coming down again, especially with air quality, something that blows in the breeze. It's a toughie.

A VOICE: I want to just make one comment. This really concerns me, and (INAUDIBLE) about cost

effectiveness. I know that doesn't have anything to do with air quality, but if the City of Tallahassee wants to be a good neighbor to Wakulla County, coming down here against most of our wishes to do this thing, I would think you'd spend a little bit of extra money to make sure it's very (INAUDIBLE) just for the standards.

MR. MILLS: It's kind of in our front yard. I realize it might be in their back yard, but that's our front yard. That coastal area is what attracts the entire world (INAUDIBLE).

MR. COLLETTE: I'm not sure legally how we can ask for that. It's just simply beyond the scope, constitutionally of what I can address. I understand your concern.

MR. MOWREY: I think he's saying that since they are in a certain environment, they would like to see it be as clean as possible to minimize adverse impact to air quality.

MR. LINERO: Well, the best example I've seen and I'm not, you know, I don't work for the City, I'm (INAUDIBLE), the best example that I've seen is the willingness to forever forego that permitted emission limit of 9,000 tons per year of SO2, and forever take a limit of 80 tons a year on SO2. I would share with

you that some of the projects that I've been working on recently, we're talking plants that are talking of increasing emissions 10,000, 20,000 tons a year and some of these plants emit 150,000 tons a year.

This kind of brings it into the real world. We're talking about cap abating, and they voluntarily entered into that cap. If we had done our job and issued a best available control technology like we did, we probably could only have limited them to, to some number higher, certainly higher than 80, but they voluntarily came in with that cap, and that seemed a pretty good sign to us that they did more than what we required of them. You know, only they can make that attempt to convince you of the same, and I think they're (INAUDIBLE) here.

A VOICE: And that's what I'm saying, we'll (INAUDIBLE) a little more in the (INAUDIBLE).

MR. LINERO: Yes.

A VOICE: (INAUDIBLE). We're not benefiting anything from this. We're going to get the acid rain or whatever comes out of this thing. That's about the only benefit we're going to get, so whatever the City of Tallahassee can do, this thing is going to get crammed down our throats one way or the other, so do us a favor and do whatever you can do to help us.

MR. OVEN: I think what Mr. Linero was saying, acid rain is a result principally of the sulfur dioxide emissions, and the fact that the City of Tallahassee has agreed to not keep those emissions at or below what they're meeting presently, which is beyond what we could have required on BACT analysis, means that there will not be any increased acid rain.

A VOICE: And I understand that, but they said there was another step they could to go make it even better. I'm asking that y'all do that. It will cost you a little more. We really need (INAUDIBLE).

MR. LINERO: We will, we'll certainly consider the comment, but I did want to tell you, of course, in making it better, when you talk about this limit of 12 parts per million NOx, limiting it to there, what will happen is when we try to make it better and get that down to, say, six parts per million NOx, then we have to add another problem, which is 20 parts per million ammonia, and suddenly you're saying, well, what was the real benefit? We got the NOx down, but now we have an additional pollutant into the air, so there's a point at which, in trying to get, you know, one pollutant down with technology that exists and the chemical process which would require the storage tanks and these chemicals moving in and out, that we thought

for environmental reasons as well as energy and economics, that the minuses would have outweighed the pluses on it.

We still, you know, the final decision on that has certainly not been made. You know, we consider the comments.

MR. OVEN: For example, you put the chemical process off, it's (INAUDIBLE) reduction, like a catalytic converter plus ammonia, you'll be smelling ammonia from time to time in the plant. With the system they plan on now, you won't smell that plant operating ammonia. So, you might, as Al said, you will reduce the nitric oxide to go to the atmosphere, but you're replacing it with ammonia, which you will smell, will notice, and it may bother some people, plus you have a problem of trucks carrying a hazardous material, ammonia, through Wakulla County and into the city of St. Marks.

So -- and that's a risk. You know, if somebody gets careless and you have an accident with that truck bringing the ammonia in, then you have a real public health problem.

A VOICE: It is not dangerous over (INAUDIBLE) all of the gas (INAUDIBLE).

MR. OVEN: I just have one of those (INAUDIBLE)

ammonia trucks.

A VOICE: (INAUDIBLE).

MR. MILLS: Getting back to the cost effectiveness, we're also talking about a carbon monoxide level that's going to be increased, but the statement here that the catalyst may also result in an increase in oxidation of sulfur dioxide, sulfur trioxide, which, combined with the moisture, this is going to crank out a million gallons of steam a day, creates a sulfuric acid mist, but I notice your statement is this impact is not considered significant. We disagree, we think sulfuric acid mist is very significant, no matter how small it is.

People in Leon and Franklin and Jefferson County have no idea that this is going to be blowing towards them 24 hours a day.

MR. COSTELLO: I can address that question, because I wrote that language. That's if we install the SCR system that we at this point have decided is not justified.

MR. MILLS: If you install the SCR you would not have that, right, but you would --

MR. RHODES: You would have it.

MR. MILLS: You would have it?

MR. OVEN: The catalyst oxidizes the sulfur

dioxide and the sulfur trioxide. That's one of the down sides of putting on that extra unit, so a catalyst helps convert --

MR. MILLS: Carbon dioxide? Carbon monoxide?

MR. OVEN: No, it helps convert the sulfur dioxide to sulfur trioxide. You add that to the moisture, you get sulfuric acid mist.

MR. MILLS: All right.

MR. OVEN: So you put the catalytic system on, not only do you have the ammonia, you also have an acid mist. So that's one of the reasons why we say, don't put that catalyst on there. We don't think it's warranted.

MR. COSTELLO: In this case.

MR. OVEN: In this case.

MR. MILLS: We do.

MR. OVEN: You want acid mist?

MR. MILLS: No, we don't. What we're trying to say we don't want the carbon monoxide and/or the sulfuric acid mist. Either/or.

MR. OVEN: They are two different things, and they're from two different parts of the process.

We're saying that if you put the catalytic system on to remove the nitrogen oxides, you're going to increase sulfuric acid mist, okay?

Carbon monoxide is a function of a different part of the (INAUDIBLE) process and (INAUDIBLE). The catalytic system has no effect on carbon monoxide. The catalytic system will affect the nitrogen oxide, it will affect the sulfuric acid mist and it will also produce the ammonia, so if you want ammonia and you want sulfuric acid mist, put the catalytic system on.

MR. MILLS: So, and maybe I'm wrong, if you take that nitrogen oxide and mix that with water, you don't make any nitric acid mist out of that?

MR. OVEN: You might get nitrous. You won't have nitric.

MR. MILLS: I note that under the BAC determination rationale that selected catalytic reduction, the SCR we were talking about, was not considered cost-effective for the City of Tallahassee. SCR is an add-on nitrous oxide technology.

Can you explain that a little bit better, please?

MR. COSTELLO: The dry low NOx burners, they are actually the combusters that burn the fuel, and they burn it in a manner that minimizes the formation of nitrogen oxides. SCR, the catalytic technology, is something you put on the back end in the stack, is a catalyst and we get ammonia at that point. It's

something you add on, if it's warranted. In this case we didn't think it was.

MR. MILLS: Maybe I'm wrong, this is saying you can use either ammonia or water usage, but that the water usage would increase the gallonage by 136,000 gallons per year annually if we were to use water?

MR. COSTELLO: When you use an SCR system, you also mix water with the ammonia, so you do increase the water usage.

MR. MILLS: Noting also in here that this BAC will also ensure that ambient SO2 impacts on the nearby St. Marks Class I area are minimized to the greatest extent possible, and I don't know which one of y'all could explain that to me, but does the St. Marks Wildlife Refuge have a higher classification than the balance of the county?

A VOICE: Yes.

A VOICE: Yes, sir.

MR. MILLS: So you have to meet these higher standards for the plants and the animals out there, but yet the civilians, that, that goes down for the civilians?

MR. LINERO: Yes, sir, that's the federal law and it's actually, it's actually ironically a good thing, because you're near one of those, one of those areas,

so consequently, if it was a plant that had any kind of, you know, impact on the populated area, it would have an impact that, at least based on the way the law exists, it would be unacceptable inside the St. Marks part, so, so ironically, in an effort to protect this scenic area, you have a desirable co-effect that the populated areas are even more protected. That's true.

MR. MILLS: I'm the county's tree-hugger, I'm concerned about the trees myself. I just wondered how that worked out in the long run. If we hadn't had that there, we wouldn't have to the meet that criteria, if we hadn't had the Wildlife Refuge?

MR. LINERO: If you didn't have, if you didn't have the St. Marks Wilderness Area nearby, we could reasonably be talking instead of caps of 467 tons per year, we could be talking of caps of 20,000, 30,000 tons per year of NOx, and that's right out of my own experience.

MR. MILLS: Your guys in the environmental section would be jumping and screaming about the outstanding Florida waterway, you know, and the seagrass preserve offshore, the whole nine yards on that one, right? You couldn't win.

One of the questions I had on the CO2 determination that you have on page 25, it's

expressing that other pollutants, visible emissions that are going to be limited to 10 percent opacity, you were saying earlier that that's a visual thing, and I was wondering, from where and how far? That's determined from somebody just standing on site, visualizing the stack, seeing what the --

MR. COSTELLO: Basically, yes, it's an eyeball (INAUDIBLE). A trained eyeball.

MR. MILLS: The nitrous oxide that I'm averaging, then, going back to the question about the 30-day rolling average, I'm still not, I'm not familiar with that 30-day rolling average routine. Would you explain that a little bit to me?

MR. LINERO: Yes, I'll give it a try. What it means is that over the period of 30 days -- now, I think I heard that G.E. is going to guarantee this thing something like nine, but let's say realistically, it could mean that their emissions might vary from nine to 15, but it can't spend too much time, too much time significantly above 12, or otherwise they could never get it low enough to average it out to 12, so the limit to 30-day, 30-day rolling average, that's something that's there in the statutes, that they can request a 30-day rolling average. If they had requested --

MR. MILLS: Is that lifted from EPA?

MR. LINERO: No, it's not lifted.

But if we wanted a 24-hour rolling average, the number would probably be higher than 12, you know, it might be 13 or 14 or 15. It's a matter of you put together the standard with the averaging time, but realistically, since they can't get down below nine to speak of, then they're not going to spend much time above 15 and have to make that up.

MR. MOWREY: Excuse me, is that 30 days that you pick or is that 30 days, consecutive days?

MR. LINERO: 30 -- 30 days rolling. That means --

MR. MOWREY: Any 30-day period?

MR. LINERO: Day in, day out, 30 days, for the last 30 days what was your average, and those averages are comprised of increments that are probably seconds long.

In other words, these aren't, these aren't just samples that are taken by technicians. This is just continuous monitored automatic equipment that's data-logged and so --

MR. LAWHON: So we're going to pull their records and --

MR. LINERO: You can definitely pull their

records, I don't even -- I'm sure they wouldn't even object.

MR. MOWREY: Does that exclude (INAUDIBLE) all periods? I think I read in there it excludes those.

MR. LINERO: It excludes the --

MR. MOWREY: Which are the highest times of emissions.

MR. LINERO: Start-ups, shutdowns. We could discuss with them the possibility of including those areas, but then the average, then the number might be more like 13 or 14 instead of 12.

MR. LAWHON: That's what I was asking as a citizen, that you would include those light-off periods in those days or 30 days or whatever you call them, rolling days. I mean, that's important. You shut down, light off and break down, I mean, those are days that you're dumping your most contaminants, those are the days you should include, and try to avoid those, that should be included in the picture.

MR. LINERO: We'll, you know, we'll take your comment and we'll discuss it with them and we'll do some research and see what the impacts are. In fact, we're doing that at some other power plants, looking at what happens if we bundle, you know, bundle the regular operation with the shutdowns and malfunctions

and so forth.

MR. LAWHON: Well, they're not going to want to do that. I mean, I wouldn't if I was running it, because I'm more likely to go over my number.

MR. LINERO: I believe, realistically speaking, I believe that they're going to do everything possible to keep these units running. They don't want to shut them down, they don't want to start them up, they want to keep them running. That's the only way to run them efficiently.

MR. LAWHON: That's the way they make money, we know that.

MR. LINERO: And so realistically, I mean, I could expect maybe a, maybe a start-up and shutdown in a month, but we'll ask them those questions before we take action on it, and we'll have an answer for you.

MR. MILLS: Lastly, I see that a statement here after the footnotes, after Table 2, on 29, that, "Based on the required analysis the Department has reasonable assurance that the proposed project as described in the report and subject to the conditions of approval proposed herein will not cause or significantly contribute to a violation of any AAQS or PSD increments."

Further on, they go into talking about the EPA

directed stack height. "In approving this permit, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA July 8, 1985, 50 FR 2789(2). Portions of that regulation have been remanded by a panel of the U.S. Court of Appeals to the District Court in NRDC versus Thomas, 838 F.2d Edition 1224, DC Circuit, 198. Consequently, this permit may be subject to modification if and when EPA revises that regulation."

Can you tell me, just give me a ballpark, what's going to happen with that? Do you have any idea?

MR. LINERO: We don't know what is going to happen with it. I can tell you that we're required by EPA to put that language in all PSD permits, whether we understand it or not. We're required to put it into all of those permits and it's a condition of the delegation of this program to the state. It's also a condition of our grant and so forth, but again, you know, realistically, there are elements of that that have to do with, with, you know, not just raising stacks to, to, to dilute pollution and also how you model the -- how the pollution disperses, but that's not a concern in this project that I'm aware of.

MR. MILLS: Is there a concern with the height of

the stack in this area. There are cypress trees down there that are a hundred foot tall, this would only been two times that height? Is it better to have a higher stack or a lower stack?

MR. LINERO: Depending on the application, but 200 is a fairly normal size for a power plant stack. I think the highest in Florida, in fact, the highest point in Florida is at the Seminole power plant in Palatka, I think that's pushing 700 feet.

MR. OVEN: The stack is about 600.

A VOICE: I know there's a big stack and I forget the name of the project now, but it was an Orlando Utilities Commission project out, way out in between Broward and, Brevard County and the city of Orlando.

MR. OVEN: Stanton.

A VOICE: Stanton, that's it. We flew the stack with a chopper and the chopper pilot was telling us we were at the upper limits that he could run that, I mean, it was way on up there.

MR. OVEN: The -- you would like to have a tall stack, but the federal regulations and environmentalists prohibit it being excessively tall. You want a stack that is high enough so that it, the wind blowing over the nearby associated buildings don't cause enough turbulence to bring that stack

effluent back to the ground too quick, so they have what they call a good engineering practice stack. I think this is designed in that range, where you want it high enough so you don't get your building turbulence effect on ground level concentrations, so you want to have a stack high enough to meet those criteria, but not excessively high where they can't take credit for it. This is within that range of good engineering practice.

MR. MILLS: If I can, one more. We were talking about an air shifting controlling device of some sort on top of the stack, or -- if I could find that one section, we're talking about an air -- let me see, I thought it was like a wind shifting device of some sort to control the emissions. Is that whether the stack is high and low, do you know what I'm talking about?

Thank you very much for the opportunity to address you.

MR. RHODES: Thank you very much, Mr. Mills.

Mr. Mowrey?

MR. MOWREY: I can talk from here.

Have you measured the effects of the discharge, that is the plume from the plant up into the microenvironment, including CO, NOx, particulate and

sulfuric acid? If so, what were your findings?

MR. LINERO: Well, we certainly haven't measured it because it's not built yet, but it's been modeled, it's been modeled as extensive reports, the experts that did the work are here, Mr. Foley, who is a consultant to the City, and Mr. Holladay. That would be kind of a difficult question just to answer, but, I mean, we'd like to spend time with you separately and discuss it with you. I think we'd just had to take your comment at this point, but, you know, get in touch with us any time and we'll talk it over with you in detail, and --

MR. MOWREY: You referenced other plants for other things you used for comparisons. Have you found comparable plants where you can make any kind of conclusions that you can use as a basis for your recommendations?

MR. LINERO: I think we could look at some other plants and, you know, if you'd like, we will.

MR. MOWREY: Okay, thank you.

Is there indication that, since you're not going to do SCR for the NOx -- excuse me, sulfuric acid, there's not going to be sulfuric acid clouds or rain, but on what I was given today as an update it still shows, on page 29 under the PSD applicability summary,

under sulfuric acid mist, an increase, from 3.0 to 8.6. I mean, that's, that's almost a 50 percent increase, so can you explain that to us?

MR. COSTELLO: Why the increase?

MR. MOWREY: Yes. You said there wouldn't be unless you went to SCR, yet -- and we're not, but yet there still is, so I'm just troubled how to --

(End of tape 1, side 2.)

A VOICE: Give me the chart number, because this means no --

A VOICE: Chart number?

A VOICE: Yes.

A VOICE: Table 2 there.

A VOICE: Yes.

A VOICE: It says back here --

A VOICE: It's just the same as the (INAUDIBLE).

A VOICE: I (INAUDIBLE).

A VOICE: Is that your chart?

MR. COSTELLO: The sulfur in the fuel predominantly forms sulfur dioxide when it's combusted. Some small fraction, a couple of percent of that, will go to sulfur trioxide and that becomes sulfuric acid mist, and it's purely a function of the amount of sulfur that's in the system, so -- from here to the past (INAUDIBLE) where the sulfuric acid mist

was three tons per year, it will go up a little bit, but not significantly in terms of PSD. They didn't trigger a rule requirement.

MR. MOWREY: Let me just suggest that from three tons to 8.6 tons --

MR. COSTELLO: Right.

MR. MOWREY: I mean, that's more than twice as much.

MR. LINERO: Let me help out, let me help out.

Realistically, realistically, there will probably be no change. What they -- perhaps what they have there is a limit. I think what's happening is it's lower, in the lower numbers, in the lower numbers it may have to do, we've talked about so numbers that the method of estimating, the inherent error, the method of estimating may be later in the magnitude of the number that's being estimated, but we'll look into that and we'll reconcile that. I believe it's just, it's just the methods that are being used to estimate. I don't think there is a technical explanation for that. I would expect the emissions to be -- sulfuric acid to be no more after than before, probably about the same.

MR. MOWREY: And on that same chart, while we're looking at it, it appears that everything, with the

exception of SO2/NOx, do increase. Most dramatically, CO increases by 127 tons a year, as well as the VOC, fluorides, mercury, et cetera. So there are significant increases most -- in every one of those with the exception of the two you've indicated, NOx and CO. Does that trouble you or concern you?

A VOICE: Well, they're just relative and it doesn't matter.

MR. LINERO: Yes, from an absolute point of view, those increases, those increases are very -- are actually small. They sound like big numbers but they're actually small. Realistically, those, the actual numbers that they will measure will probably be about the same as in the past, maybe lower. What happens is that when you write a permit on certain things, you have to have, you have to have a number that you're certain you won't exceed, and I think that's probably, again, that's probably the estimated maximum compared to perhaps the actual historical emission.

But the numbers, you know, we're concerned about all air pollution, but those numbers are actually very, very low, and I'd be happy to share with you some typical numbers of clean facilities that are ten times as high as those.

MR. LAWHON: You have to see our concern when all we're hearing is this new modern facility --

MR. LINERO: Yes.

MR. LAWHON: -- is going to be better for everyone, better for the environment, for the atmosphere, but by the chart that you have given us, it's worse, and yet now you say the chart's not right, so it's a real concern for us.

MR. MILLS: With this in the air mixing with the groundwater, this may actually run former Governor Kirk off from stealing the water here because we're going to pollute it with all this --

MR. LAWHON: We're already got warnings from the State that, every week from not eating fish for mercury (INAUDIBLE) because of the mercury.

MR. COSTELLO: I'd like to say something. You've got to keep in perspective, they're just firing predominantly natural gas at this plant, so these plumes that you've talked about, they don't exist in the field to begin with, to a measurable degree. I mean, you burn a lot of it over --

MR. LAWHON: So this chart is not burning natural gas?

MR. COSTELLO: I think this reflects burning natural gas and some quantity of fuel oil. I don't

recall what it --

MR. LAWHON: Why have we got this chart? If this is not what the City of Tallahassee is going to do, why even put this up here? It doesn't make sense.

MR. COSTELLO: What it is, it's a conservative estimate of the worst tonnage per year of each of these pollutants that we regulate in the PSD program, if that unit was operated completely, all year round, never shut off. Past actuals are best guesses for a lot of these pollutants. No stack test has been used.

MR. LAWHON: Back up just a second. Now, you said if it runs year-round. Now, you said it may only have a shutdown maybe once a month for one day, or -- pretty much it's going to run 24 hours a day, 360 days a year, 350 days a year. Is this, this worst case scenario, is that with natural gas?

MR. COSTELLO: No equipment can run continuously like that. They will have to, particularly once a year they shut it down for probably a week for an annual outage.

MR. OVEN: Marty, how was this chart derived? Was it derived solely on natural gas, solely on --

MR. COSTELLO: It was derived --

MR. OVEN: -- the oil, or a combination of both?

MR. COSTELLO: A combination of both. A small amount of oil, mostly gas.

MR. OVEN: And are you saying that the predominant source of mercury and certain things like that will primarily come from the oil and not the gas?

MR. COSTELLO: Yes. Yes. And again, these numbers are relatively small.

MR. LAWHON: Well, there again, everybody has tried to voice this sulfuric acid mist, I have several problems. If that's true, you know, we don't need that. We don't need that. Even if it's not a significant amount to you, it's more than double what we've got now, whatever that may be. We don't need that.

MR. MOWREY: Could I ask one more question?

A VOICE: Sure thing.

MR. MOWREY: We notice -- it appears from the material that about a million gallons of water a day that evaporates into the atmosphere, an air quality issue.

Could you tell us, if you know, approximately how much of that might come from the river as opposed to the wastewater plant? Is it going to be mixed in the cooling tower, and then -- (INAUDIBLE) question, one more part to it -- certainly coming, the effluent from

the wastewater system is going to have a chlorine additive, what's the effect of heating chlorine and dispersing it into the air?

MR. COSTELLO: I think I can answer that question.

The cooling tower will predominantly be fed by river water, and I think it's about 1,000 gallons an hour, is that right?

A VOICE: A minute.

MR. COSTELLO: 1,000 gallons a minute from the river. About one percent of that flow is going to come from the St. Marks wastewater treatment plant. All of the effluent in that plant will go to this cooling tower, and that will represent about one percent of the total flow going to the cooling tower.

MR. MILLS: Except when it's shut down for these maintenance periods?

MR. COSTELLO: Yes, I think when it's shut down they have a storage tank on site where they're going to pump the wastewater from St. Marks (INAUDIBLE) and then pump (INAUDIBLE).

MR. MOWREY: We had a little difficulty converting gallons per minute to gallons per hour, gallons per day, but we think, the little committee we've met, we think we determined that just under a

million gallons a day. You've talked about water you're going to pull from the river to use for cooling, out of which approximately one million gallons will evaporate. It seems like that's increased from approximately .9 million gallons per day to 60 million gallons a day. Is that reasonably accurate? Withdrawn from the river, not returned.

MR. COLLETTE: That's almost a certification issue.

MR. OVEN: It is a certification issue, really.

These air people haven't looked at how much water came from downstream --

MR. LINERO: But let's, we'll take the question down and forward it to the --

MR. OVEN: Well, it's not a PSD issue.

MR. MOWREY: Well, it only was in the event that it -- that water is part of the water going in the air and mixes with the wastewater, it is relevant to the air quality, certainly.

A VOICE: And if it --

MR. MOWREY: If most of it is river water as opposed to being mixed with wastewater, then we won't worry about it.

MR. OVEN: Most of it is river water. Now, I believe that the treated effluent from the City of St.

Marks sewage treatment plant is probably going to go into the on-site water treatment system, before it ever gets to the cooling tower.

MR. MILLS: Which is the chlorination process.

MR. COSTELLO: No, I don't think that's accurate. I think it's treated by the City and then it will be put in --

MR. OVEN: I doesn't necessarily go directly to the cooling tower. Maybe that's --

MR. COSTELLO: Yes, I asked that (INAUDIBLE).

MR. LAWHON: Did you ever give an answer, I didn't understand it if you did, on what effect it has, the chlorine would have in the cooling tower.

MR. LINERO: The chlorine would be heated in the water and evaporate then, the heated air, into those plumes floating around.

MR. MOWREY: What would the medical effect of that be?

MR. COSTELLO: It's a wash, because the City of St. Marks chlorinates the water now and they dump it in the river, and it evaporates eventually, so whether you do it --

MR. LAWHON: But it's not being heated and thrown up into the --

MR. COSTELLO: Yes, but chlorine is pretty

volatile. I mean, like a swimming pool, you have to keep adding chlorine every week -- it doesn't stay in water. It makes its way to the atmosphere, basically.

A VOICE: Howard (INAUDIBLE).

MR. RHODES: There may be, I don't know. Most plants do --

MR. MILLS: Yes, that's what people are asking, because of the smell around pools of chlorine. I mean, are they going to smell like a chlorine cloud up there?

MR. RHODES: No.

MR. MILLS: It will be that dispersed?

MR. RHODES: Well, first of all, the chlorine tends to react with the various organic compounds in the treated sewage effluent to start with. That consumes a lot of it. But because of concerns of chlorinated hydrocarbons getting into our surface waters, in recent years the Department has been requiring sewage treatment systems to dechlorinate before discharge, then it's chemically treated before discharge, so if this is done before it ever comes to the, the Purdom unit, there may be zero if any chlorine to speak of coming over there, so you will not be dealing with a, a free, you should not be dealing with free chlorine radicals coming into the

cooling tower.

MR. LAWHON: But you don't know if that's true?

MR. RHODES: At this point I don't know. I don't know how it's treated, but that's something we could check.

MR. COSTELLO: I asked that question this evening and the answer I was given was it's not dechlorinated coming from the wastewater treatment plant (INAUDIBLE).

A VOICE: Okay.

MR. MOWREY: One more question, just one more.

I believe you said that your concern in the report dealing with air quality that we're not dealing in this case with anybody doing any tradeoff or -- like you might do in zoning, swap off some density, having to purchase increments of air quality as a tradeoff for emissions which you'd see getting to safe levels. We're looking instead at measuring, and I would assume you're measuring in accordance with the standards in Chapter 62 of the Administrative Code. Those are maximum permissible rates, I would guess. Is that how y'all apply those?

MR. LINERO: The increment is based solely upon air -- computer dispersion modeling. It was totally based on that. It's not based -- it's based on actual

-- it's based on what, for SO2 and PM, what happened in 1977 is considered a baseline date, so you're taking emissions of 1977, from whatever, all these sources in this area, and it slows them to a certain level, and then any new sources or modifications would be modeled against that baseline and this, the increases in the ground level concentrations cannot be greater than these numbers, but it has -- it doesn't have anything to do with based on buying on things and it's not made, it's based on modeling.

MR. MILLS: And this modeling has shown you that this plant has been put out a clear discharging background in 1977?

MR. LINERO: Well, what it's showing is -- in some cases, it is showing that, for SO2 and PM, in many cases, it's very low, it's barely above zero. For one reason, they -- the SO2 is being frozen at 80 tons a year, whereas it had permitted allowable for much higher, and I'm not sure exactly what the numbers were, but back in 1977 it would have been higher, possibly. I'm not sure what -- but that's where the, why the numbers are extremely low.

MR. RHODES: Well, in 1977 the plant was burning, say, two and a half percent sulfur oil. It probably could have been used four, five, and six, seven, you'd

be putting out quite a bit of SO2. You shift to natural gas, you would come down a whopping amount, and here you stay with natural gas, you're staying down at that low level. This is why you, you do cap on SO2, it's a tremendous drop from 1977 numbers.

By the same token, though, you'd have to look at the impact of Hopkins Unit No. 2, which has been built since '77, (INAUDIBLE) in '77, and that was a source that would be consuming air quality, and that would have been looked at in meteorological situations.

MR. LAWHON: Where is that located?

MR. RHODES: It's on Getty Road, west of Tallahassee.

MR. COLLETTE: About three miles.

MR. RHODES: Close to Lake Talquin.

A VOICE: -- what source was included in this modeling.

MR. RHODES: Yes. I mean, part of the analysis, you look at all the new air pollution sources that have been built in this area since, say, 1977.

A VOICE: You say the area is a about 50 kilometer circle around --

MR. RHODES: Yes.

A VOICE: Basically, there were very few, if any, air pollution generators down in this neck of the

woods back during that time (INAUDIBLE).

MR. RHODES: You also have to look at what else the City of Tallahassee added up around Tallahassee. That's been looked at, so --

MR. MILLS: So the air quality that you're allowed to meet now is based on the air quality in the Tallahassee-Leon area figured in with this area of mine, even though the site is going to be generating here, we're using --

MR. RHODES: Well, like I say, federal regulations require the Department consider all the sources that have been constructed, put in operation in the area of influence. Certainly what Tallahassee built up in Tallahassee in the '70s has an impact down in Wakulla County.

MR. COLLETTE: The way I understand it.

A VOICE: Yes.

A VOICE: Air quality-wise, yes.

A VOICE: When the wind is from southwest to northeast.

MR. LINERO: Well, the model takes into account more than just the prevailing wind. It's going to look at winds every hour. If we use a data set of five years, we don't look at one that's every hour of the day for a whole year, plus it goes out to five

years, so it's not just prevailing wind that has an impact, but -- count more than that.

MR. RHODES: If you look at actual wind rows, wind, and just go around the clock, it goes with seasons. I mean, it goes around the compass, I should say, because of the seasons. There are certain times of the year, like right now, you start getting a lot more northwesterly flow. I mean, different times of the year you will get winds from the north, from the northwest, north-northeast, and other times of the year in the summer months you're going to get a southerly flow because of the sea breeze effect. Of course, at nighttime you have a reversal of that seabreeze effect, you get the land breeze, so we have to, the Department has to look at the entire suite of winds that are available throughout the year, look at the meteorology.

This is why we have to look at air quality impact and sources, in let's say Leon County, on Wakulla County as part of the (INAUDIBLE).

MR. COLLETTE: From a lay perspective, my understanding, and I stand to be corrected by the air people and the engineers, but the purpose for this requirement was that -- you can eat up a whale by little nibbles at a time, and the purpose of PSD is

we're going to look, and if somebody else has added pollutants to the air, we're not going to allow them to have another little nibble until eventually there's a bunch of little nibbles adding pollutants in an area and all of a sudden the air is out of quality, so we're consider everything that's discharged and limit this new discharge by what's in the air already.

A VOICE: Let me ask --

A VOICE: Yes.

MR. LINERO: (INAUDIBLE) the City of Tallahassee, the allowable air pollution that's allowed on the ground in that area, in the Tallahassee area, the additional pollution since, say, 1977 can be a factor of at least 10 times the amount that's allowed in this general area, and the amount that's allowed in this area has to consider whatever, whatever sources are around here within 50 miles, so basically this is an area that the law requires us to, to scrutinize a lot more carefully, to be a lot more conservative in the modeling and, again, this is where, this is where I'd want to be, right next to that park. You've got a (INAUDIBLE) burning natural gas, you've got caps on emission, and I would be more than happy if you want to visit me sometime at the office, it's not too far away, I'll show you some other projects, I'll show you

the cleanest projects in the state, and --

MR. MILLS: Where I was coming from is it seems like this county is getting penalized for the very air that's in the Tallahassee and Leon area. We're being, that's dropping the quality here because they have problems with the air up there. You're taking in this area for that, to actually clean that sampling up. You're using some of this air and some of that air, and over the urban areas you can have more pollution.

MR. LAWHON: That was the question I have. I mean, say that Wakulla County wants to build a power plant in a couple of years. We're going to be held to restrictive guidelines because you're already using some of our air quality here.

MR. OVEN: Try to make it -- when we look at, say, the impacts on the St. Marks Wildlife Preserve, which is basically south of the Purdom plant, right, south and east?

A VOICE: Very little south, mostly east. Mostly ocean to the south.

MR. OVEN: Yes, but there is a strip of it that's to the south, so south and east. The Purdom plant has a certain air quality impact there. We don't look just at that impact. I mean, we do look at that impact, but we also have to consider the air that's

coming down from Tallahassee.

MR. MILLS: That a good three or four times a year that that does that.

MR. OVEN: Whatever. It doesn't make any difference, it happens, we are forced to look at that. So there are certain meteorological days when the plume from the Arvah Hopkins power plant west of Tallahassee will come directly over the Purdom plant, going to the St. Marks Wildlife Refuge.

We have to evaluate that with the air quality dispersion model to see whether or not the air quality increment, Class I air quality increment which is the most restrictive in the St. Marks Wildlife Preserve, is complied with.

We've done that, and it does not violate it, under those worst case conditions. We don't look at the best case, we have to look at the worst case, and line up the major sources, and does it pick up something from what -- not necessarily that DuPont puts out any sulfur or anything like that, or any other oil companies in the area or anybody else generating something. They don't like to be looked at, and that's part of this PSD process.

So you're not necessarily getting penalized by what Tallahassee has done up in Leon County. In some

cases it may help you. It's -- may prevent other people from coming in.

Now, as far as whether or not you want to build your own power plant, it depends on where you want to build it as to whether or not, what the City will do, St. Marks, will either help or hurt it.

A VOICE: The last comment about the keeping other people (INAUDIBLE) they're going to take action (INAUDIBLE) City of Tallahassee.

MR. LINERO: If you wanted to build your own power plant, they, I believe I'm not mistaken if I were to say that they have just put some of that increment back onto the table because they've given up their permanent right to pollute with 9,000 tons a year of sulfur dioxide, and they have put that back on the table. That wasn't there before. Even if they didn't use that, those permitting words, they basically said, here, we're giving them back again and you know you can try to tap them and so forth, we just don't want to exceed the increments (INAUDIBLE) in the national ambient air quality standards, so --

MR. OVEN: Or some electric co-op or somebody else who wants to build a power plant, now, hey, maybe here's a place they can put one, because there's -- that's what might be your revenue stream.

A VOICE: (INAUDIBLE) federal and state statutes are. They're taking that increment of dirty air and setting it out on the table. It doesn't go away, it's out there for everybody else to use, to bid on.

MR. MOWREY: Not bid on.

MR. LINERO: It would still have to be modeled and you still, you still can't increase the national ambient air quality standards, and I can tell you, it would wind up being clean facilities like this one. Nobody is going to come here and use that increment with a, you know, with a very polluting facility, but the increment is back on the table and that's probably the thing that surprised me the most about this project, that that happened, and that usually doesn't happen. These rights are guarded jealously by the people that I have dealt with throughout the industry.

MR. RHODES: I don't want to preempt anyone, but are there any additional questions?

In that case, I will declare the public meeting over. I appreciate all of you coming out tonight. We really appreciate the opportunity to try to address some of your questions.

(End of tape 2.)

C E R T I F I C A T E

STATE OF FLORIDA)

COUNTY OF LEON)

I hereby certify that the foregoing transcript is of a tape-recording taken down by the undersigned, and the questions and answers thereto were reduced to typewriting under my direction;

That the foregoing pages 2 through 89 represent a true, correct, and complete transcript of the tape-recording;

And I further certify that I am not of kin or counsel to the parties in the case; am not in the regular employ of counsel for any of said parties; nor am I in anywise interested in the result of said case.

Dated this 8th day of June, 1998.

Clara C. Rotruck

CLARA C. ROTRUCK
MY COMMISSION # CC412184 EXPIRES
November 7, 1998
BONDED THRU TROY FAIN INSURANCE, INC.

CLARA C. ROTRUCK

Court Reporter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30303-8909

OCT 14 1997

4ARB-APT

Martin Costello, P.E.
New Source Review Section
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: City of Tallahassee Utility Services Purdom Unit 8
(PSD-FL-239)

Dear Mr. Costello:

By letter dated September 15, 1997, you requested that U. S. Environmental Protection Agency (EPA) Region 4 provide comments on the proposed custom monitoring schedule as highlighted on pages 8 and 9 of the draft Prevention of Significant Deterioration (PSD) permit. Additionally, you asked for comments on the proposed specific condition F1 which would allow the use of the title IV required NO_x CEMS for demonstrating compliance. After reviewing the conditions and the applicable guidance, our comments are as follows.

SO_2 Custom Monitoring Schedule

The currently applicable guidance for custom monitoring schedules is the memorandum dated August 14, 1987, from John Rasnic to Air Branch Chiefs entitled "Authority for Approval of Custom Fuel Monitoring Schedules Under NSPS Subpart GG" (enclosed). The proposed PSD permit is not consistent with this guidance in that the permit does not require sampling twice per month for six months and once per quarter for six quarters prior to going to semi-annual testing. Although the guidance acknowledges a growing trend toward the use of pipeline quality natural gas and the possible need to re-evaluate the sulfur monitoring requirement, the guidance has yet to be updated.

Alternative NO_x Monitoring

The currently applicable guidance for alternative NO_x monitoring for sources subject to NSPS Subpart GG is found in the memorandum dated March 12, 1993, from John Rasnic to Karl Mangels, entitled "Approval of the Use of NO_x CEMS as an Alternative Method to the Water-fuel Ratio Monitoring under NSPS Subpart GG" (enclosed). The proposed permit is not consistent with this policy since the permit does not require that the results used to verify compliance with the NSPS limit be expressed in ISO standard conditions. The proposed NO_x emissions limits (12 ppm gas/42 ppm oil, 30-day average) appear to be lower

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 14 1987

OFFICE OF
AIR AND RADIATION

MEMORANDUM

SUBJECT: Authority for Approval of Custom Fuel Monitoring Schedules Under NSPS Subpart GG

FROM: John B. Rasnic, Chief
Compliance Monitoring Branch

TO: Air Compliance Branch Chiefs
Regions II, III, IV, V, VI and IX

Air Programs Branch Chiefs
Regions I-X

The NSPS for Stationary Gas Turbines (Subpart GG) at 40 CFR 60.334(b)(2) allows for the development of custom fuel monitoring schedules as an alternative to daily monitoring of the sulfur and nitrogen content of fuel fired in the turbines. Regional Offices have been forwarding custom fuel monitoring schedules to the Stationary Source Compliance Division (SSCD) for consideration since it was understood that authority for approval of these schedules was not delegated to the Regions. However, in consultation with the Emission Standards and Engineering Division, it has been determined that the Regional Offices do have the authority to approve Subpart GG custom fuel monitoring schedules. Therefore it is no longer necessary to forward these requests to Headquarters for approval.

Over the past few years, SSCD has issued over twenty custom schedules for sources using pipeline quality natural gas. In order to maintain national consistency, we recommend that any schedules Regional Offices issue for natural gas be no less stringent than the following: sulfur monitoring should

be bimonthly, followed by quarterly, then semiannual, given at least six months of data demonstrating little variability in sulfur content and compliance with §60.333 at each monitoring frequency; nitrogen monitoring can be waived for pipeline quality natural gas, since there is no fuel-bound nitrogen and since the free nitrogen does not contribute appreciably to NO_x emissions. Please see the attached sample custom schedule for details. Given the increasing trend in the use of pipeline quality natural gas, we are investigating the possibility of amending Subpart GG to allow for less frequent sulfur monitoring and a waiver of nitrogen monitoring requirements where natural gas is used.

Where sources using oil request custom fuel monitoring schedules, Regional Offices are encouraged to contact SSCD for consultation on the appropriate fuel monitoring schedule. However, Regions are not required to send the request itself to SSCD for approval.

If you have any questions, please contact Sally M. Farrell at FTS 382-2875.

Attachment

cc: John Crenshaw
George Walsh
Robert Ajax
Earl Salo

Enclosure

Conditions for Custom Fuel Sampling Schedule for Stationary Gas Turbines

1. Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine.

2. Sulfur Monitoring

   a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are: ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).

   b. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.

   c. If after the monitoring required in item 2(b) above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sample anaylsis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.

   d. Should any sulfur analysis as required in items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the State Air Control Board) of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

3. If there is a change in fuel supply, the owner or operator must notify the State of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of three years, and be available for inspection by personnel of federal, state,and local air pollution control agencies.

than the NSPS limit (150 ppm, 1-hour average). Accordingly, if the source is in compliance with the PSD limit, it should also be in compliance with the NSPS limit. If, however, the source is in violation of the PSD limit, there would be a point at which the data would have to be corrected to ISO standard basis in order to tell whether or not the NSPS limit had been violated also.

Thank you for the opportunity to review and comment on this package. If you have any questions on these comments, please contact David McNeal of my staff at (404) 562-9102 or Gregg Worley of my staff at (404) 562-9141.

Sincerely yours,

Brian L. Beals
Chief
Preconstruction/HAP Section
Air & Radiation Technology
Branch

Enclosure

cc: File
S. Shepelak, BAR
M. Harley, BAMMS
J. Curtis, C of T