ORIGINAL

ALOHA UTILITIES, INC.
Docket No. 991643-SU
Ted Biddy Deposition

Late-Filed Exhibit No. 10

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Application for increase in wastewater rates in Seven Springs System in Pasco County by Aloha Utilities, Inc.	Docket No. 991643-SU

THE DEPOSITION OF:	TED L. BIDDY, P.E.
TAKEN AT THE INSTANCE OF:	Attorneys for Aloha
DATE:	Wednesday, August 16, 2000
TIME:	Commenced at 9:30 a.m. Adjourned at 3:30 p.m.
LOCATION:	2548 Blairstone Pines Dr. Tallahassee, Florida
REPORTED BY:	MICHELLE SUBIA, R.P.R. Notary Public in and for the State of Florida at Large

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ACCURATE STENOTYPE REPORTERS, INC.
100 Salem Court
Tallahassee, Florida 32301
850-878-2221

APPEARANCES:

REPRESENTING ALOHAL UTILITIES:

JOHN L. WHARTON, ESQUIRE
F. MARSHALL DETERDING, ESQUIRE
Rose, Sundstrom & Bentley
2548 Blairstone Pines Drive
Tallahassee, Florida 32301

REPRESENTING THE OFFICE OF PUBLIC COUNSEL:

STEVE BURGESS, ESQUIRE
Deputy Public Counsel
111 West Madison Street
Room 812
Tallahassee, Florida 32399-1400

REPRESENTING THE FPSC:

JASON FUDGE, ESQUIRE
RALPH R. JAEGER, ESQUIRE
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0863

ALSO PRESENT:

STEPHEN BART FLETCHER
ROBERT NIXON
DAVID PORTER
MICHAEL WEATHERTON
BOB CROUCH

I N D E X

PROCEEDINGS

The following deposition of TED L. BIDDY, P.E. was taken on oral examination, pursuant to notice, for purposes of discovery, and for use as evidence, and for other uses and purposes as may be permitted by the applicable and governing rules. And reading and signing is waived.

* * *

Thereupon,

TED L. BIDDY, P.E.

was called as a witness, having been first duly sworn, was examined and testified as follows:

MR. FLETCHER: I'm Stephen Bart Fletcher with the Public Service Commission.

MR. FUDGE: Jason Fudge with the Public Service Commission.

MR. JAEGER: Ralph Jaeger with the Public Service Commission.

MR. WHARTON: John Wharton for Aloha.

MR. NIXON: Robert Nixon, Cronin, Jackson, Nixon & Wilson, CPA.

MR. DETERDING: Marshall Deterding with Rose, Sundstrom & Bentley.

MR. PORTER: David Porter, consulting engineer for Aloha.

MR. WEATHERTON: Michael Weatherton, Public Service Commission.

MR. CROUCH: Bob Crouch, Public Service Commission.

MR. BURGESS: Steve Burgess, Public Counsel's Office.

MR. BIDDY: And I'm Ted Biddy, consulting engineer for the Office of Public Counsel.

DIRECT EXAMINATION

BY MR. WHARTON:

Q Sir, would you state your complete name and professional address for the record.

A Ted, middle initial L, Biddy, B-I-D-D-Y. My address is 2308 Clara Kee Boulevard, Tallahassee, 32303.

Q What is your relationship with the Office of Public Counsel in this case?

A I am a consulting engineer under contract with the Office of Public Counsel.

Q When you say under contract, do you mean that you have some kind of a yearly retainer with them or are you being paid on an hourly basis?

A Yes. I have a continuing service contract with them.

Q With LPC?

A Yes.

Q What's your hourly rate in this case?

A $100 per hour.

Q How many hours have you put in this case?

A I don't remember right offhand. Essentially 150 or some such thing.

Q Okay. From when to when?

A I believe the first of August I invoiced for the entire month of July, and I believe that was the great bulk of it. And I think it was about 150 hours.

Q Okay. So you did a lot of intensive work in this case in the month of July?

A That's correct, yes.

Q Really prior to the month of July, you had minimal involvement or no involvement in this case?

A Some, I guess, when it first came out. But that was when the intensive work started was July 1.

Q I know this is a big question, but all we can do is work through it. What have you done in preparation for your participation in this case?

A Well, as I said in my testimony -- I think that would give you the best idea -- I studied all of the MFR filings and the exhibits filed by Aloha, all of the PSC staff and utility correspondence back and forth concerning those filings, the discovery that was done by the staff for Aloha.

I attended two depositions, one being David Porter's and the second being Robert Nixon. I made an on-site inspection of the construction work in progress at the treatment plant. I conducted a field inspection of all of the service area.

I went to Tampa and interviewed the Florida Department of Environmental Protection permitting and Enforcement staff regarding Aloha's wastewater treatment plant. And I read all of their files and obtained some copies of the FDEP files.

So that was the background information that I had. And of course I've done several analyses since concerning the used and usefulness of the plant.

Q Okay. Mr. Biddy, most of what you've just testified about you were looking at your prefiled testimony, correct?

A Yes.

Q So I think what I'll do is ask you the details of that when I look at your prefiled testimony. Tell me what you've done, including the analyses you just mentioned, since filing your prefiled testimony or that's not referenced in your pretrial testimony.

A I have prepared a series of interrogatories for discovery that I believe the OPC office has submitted to Aloha.

I've also read copies of -- I believe we got the depositions, the transcripts of the depositions of Mr. Porter and Mr. Nixon in. I don't think there's much else.

Q Those were the analyses that you were referring to?

A No. I did the analyses before I filed my prefiled testimony.

Q And those analyses were based on the sources and the information that you've testified about here today?

A That's correct.

Q Do those analyses exist in written form other than what you've presented in your prefiled testimony?

A I don't believe so other than probably some preliminary numbers I gave in memorandum to OPC attorneys.

Q When did you do that?

A Early on in the case, probably the first of July, somewhere around the first of July.

Q When you say they were preliminary numbers, preliminary numbers reflecting what?

A Used and usefulness of the various components of the system.

Q Did they differ from the used and useful conclusions that are reflected in your prefiled testimony?

A Slightly, very slightly.

Q Were they reflective of a higher or a lower used and useful percentage?

A I don't remember. I think it was probably within two or three percentage points or tenths of percentage points. In other words, they weren't refined where I actually did it for my testimony.

Q Did you do that memorandum in advance of the types of document review and interviews and field work that you indicated you did in your prefiled testimony?

A I did it along with the -- in fact, there were more than one memorandum. There were several.

But I did it as I went along. As I studied various parts of the case and came to preliminary conclusions, I would give the OPC attorneys the benefit of my thinking.

Q So in fact, even after you went and you did all of that field work and document reviews and the interviews, et cetera, you pretty much had the same opinions you had before doing that about the used and useful percentage?

A Pretty much. Although, we are still to this

day hunting information from Aloha through interrogatories. So some of it was based on assumptions. And we can get into that in specifics if you want to.

Q Okay.

MR. WHARTON: Before we do that, Steve, do you mind if we look through the documents that are being produced today at the same time that we are proceeding with the deposition or would you rather I ask Mr. Biddy to go through page by page?

MR. BURGESS: I'm not sure I quite appreciate the distinction you're making. The answer is probably not. Whatever is the most expeditious way.

MR. WHARTON: Well, it's probably for me to take the documents and set them right here and let Mr. Porter go through them as opposed to me saying to Mr. Biddy, all right, Mr. Biddy, tell me what you've produced today and what every sheet is and let me ask you questions about it.

Does that sound okay?

MR. BURGESS: Yes.

Are you okay with that? Do you want to talk to me about it first?

THE WITNESS: I didn't know that I was to produce all documents. I brought the pertinent

stuff. Probably there's some in my office that I didn't bring. But we'll give you what we got.

BY MR. WHARTON:

Q Well, let's talk about that. Maybe we should get a copy of the notice.

Did you know that this was a deposition which was the type of deposition that required you to bring documents?

A I did not receive a subpoena, no, or a notice.

Q So you haven't seen the document list that was attached to the notice?

A No.

Q So the documents that you brought with you today are not necessarily the documents that you think are responsive to this notice you haven't seen; is that correct?

A I think probably most of them are. But I've got a file this thick of background material that I did not bring, mainly because it was too heavy and it wouldn't fit in my briefcase.

Q Okay. Tell me in detail what you didn't bring.

A A lot of the correspondence between Aloha and the Public Service Commission, I think the first

filing, the February filing, MFRs from Aloha, I did not bring that, and the depositions themselves I did not bring, copies of them. Miscellaneous background materials is essentially what I did not bring.

Q What about notes or writings that are reflective of discussions or conversations that you had with DEP personnel?

A I may have that here. I'm not sure. I probably do.

Q It may be here or it may be in the --

A I certainly did a memorandum report that's here concerning that.

Q For right now, if you have no objection, let's let some other people representing Aloha look through those. And we'll decide what to do about any other documents in a few minutes. But that way we can go ahead.

Why don't you hand me whatever it is you brought.

MR. BURGESS: Wait a minute. Let me talk with him.

(Off the record.)

A Do you want handwritten notes and copies of manuals?

BY MR. WHARTON:

Q I think I'll take every single thing that you brought. And really, Mr. Biddy, I don't mean to be preemptive, but I think it would be better if you just gave me every single piece of paper. And we'll decide whether we already gave it to you or whether it's relevant.

MR. BURGESS: No. There's certain privileges, work product and that kind of thing which you're not entitled to see.

MR. WHARTON: Let's go off the record while you go through those.

(Off the record.)

BY MR. WHARTON:

Q I guess, Mr. Biddy -- I don't know how to really do this other than read it into the record. Let me indicate to you the universe of the documents that you were requested to bring with you today.

The amended notice of deposition duces tecum says, "The deponent is instructed to bring him" -- and it's a typographical error -- to bring with him "to the deposition any and all documents, photographs, work papers, memorandums, correspondence or similar analogous instruments related to this matter which the witness possesses or has received, referenced, relied upon or which was supplied to the witness by any person or party

in connection with this manner or which was supplied by the witness to any person or party in connection with this matter."

Does that pretty much cover everything you've got, do you think?

A Well, there may be something that I didn't bring. As I said, I didn't know I was to bring my entire files.

Q And I understand that, sir. Do you believe that the language that I just read to you, that if you had realized that you were supposed to bring all of the documents responsive to that language you would have brought the other documents you didn't bring?

A I don't think I would. I don't think that there's anything in the other files. I think it's just background materials. But there might be something.

Q But it relates to this case?

A Background material such as the correspondence between the PSC and Aloha, other items. It's a thick file.

But I don't believe it contains anything I generated or used in connection with my analysis, but there could be something.

Q Let me put it this way: Is it true that the reason that you did not bring those documents today is

not because you didn't think those documents fell within the language that I just read to you?

A Say that again.

Q I'll try. Is the reason that you didn't bring those other documents here today because you didn't believe they were captured by this language?

A I had not seen the subpoena, number one, or notice. I didn't have room in my briefcase for it. It was not important, I didn't think, to this deposition.

Q So that's not the reason you didn't bring those other documents then, correct, that you didn't think they were captured by this language?

A No, that's not the reason.

Q Okay. Without telling me any of the content or the specifics of these documents, tell me what documents you have brought with you today but that you are withholding after consultation with counsel from disclosure?

A Well, it's essentially reports to the OPC attorney that fall within the realm of privileged communications. They are simply reports and recommendations, which is essentially all -- maybe a little other material from the accountant, OPC's accountant.

Q Well, let me ask you something. When you

say reports to the attorney, you mean memorandums that you wrote to Mr. Burgess?

A Yes. That's correct. After I had made an inspection or went to the DEP office or whatever, I did a report to Mr. Burgess.

Q Are any of the documents that you've withheld from someone else to you?

A Yes. We have another consultant that works with me and OPC on some cases, an environmental engineer named George Sue. There's one memorandum from him.

Q He's an expert retained by OPC?

A Yes.

Q What was Mr. Sue's role in this matter?

A Mr. Sue assisted me in analyzing the plant and distribution system from the standpoint of the sizing of components that Aloha had installed, the used and usefulness of certain portions of the plant. I believe that was essentially all.

Q Are there any documents that you have withheld today which were either to or from Mr. Larkin?

A Yes. I have a copy of a document from Mr. Larkin to Mr. Burgess that is deemed privileged, I guess.

Q Are there any of the documents that you've withheld today that are to or from Mr. Fisano?

A No.

Q Was Mr. Fisano copied with any of the documents that you have withheld today?

A No, none that I prepared.

Q Was anyone who is not related to this case or not working with OPC copied with any of the documents that you've withheld today?

A No.

Q One of the documents that you've given us to look at, Mr. Biddy, says, "Aloha Sewer" and it has the document number and it's titled "Outline of Documents Studied." Is that correct?

A Yes.

Q What is this particular document?

A Well, that's an extra copy of a part of a report that we withheld. We shouldn't have given it to you. It's an initial report to Mr. Burgess of what I had read in the documents, file and documents.

MR. BURGESS: Let me go off the record.

(Off the record.)

BY MR. WHARTON:

Q You said that this document that I was just talking to you about is an extra copy?

A Yes.

Q I want to attach this. When it says,

"Outline of Documents Studied" -- what date did you prepare this?

A Sometime in early July, maybe the end of June.

Q Okay. And do you think it's reflective of most of the documents you had studied before you came up with your opinions?

A No, it was not. But it was reflective of the first -- when I got through with all of the documents that were furnished to me by OPC, which was all of the case documents that had been filed in correspondence with PSC, there was nothing I had generated at that point. But this is my first thoughts on the case based on the file documents.

Q Okay. We won't get anything marked right now. We'll do the documents when we're ready to talk about them.

Mr. Biddy, what experience do you have rendering expert opinions on used and useful calculations?

A Well, I have testified before the Public Service Commission for some years now, since, I believe, '93, '94, on a number of cases all over the state of Florida.

I also have been before the Public Service

Commission in Missouri on used and useful matters. So it would be six to eight years of experience in investigations and testimony on used and usefulness.

Q Were those cases that actually went to trial and you gave testimony within those trials?

A Yes.

Q And by trials I'm including administrative hearings.

A Right. Before the PSC, yes.

Q Reflect for me, if you can, the last two or three Florida Public Service Commission cases that you actually gave such testimony in, if you can recall.

A I may not have them in any particular order, but there is certainly a case involving the North Ft. Myers Utilities. There was a case involving Southern States Utilities for systems all over the state of Florida.

There was a case involving the Gulf Coast Utilities, I believe it's called, over on the east coast of Florida. There's been numbers of others, but those three come to mind right offhand.

Q Were those within the last set number of years?

A Yes.

Q What number of years, two or three years?

A The last two or three years, yes.

Q And were you working for OPC in all of those?

A Yes.

Q What's your understanding of the concept of used and useful? What's your definition?

A Well, I think it's pretty well self-explanatory. It's facilities that are in place that are in service for the public and for public use.

The used and usefulness is to the extent of which it's used compared to its capacity. That's a pretty good terminology that defines it, used and usefulness.

Q Is there a time frame within that concept?

A Of course there has been, and that's varied over the years. OPC's official position is that any margin reserve or extra capacity beyond present needs is something they oppose.

However, there is a law now that requires a five-year margin reserve or extra capacity for the next five years, which has been taken into account in this case.

Previous to this, there were other time periods that I believe the PSC adopted that we of course took note of but did not agree with it, which was 18

months for a plant and 12 months for lines, et cetera, et cetera. But those are essentially all of the time periods.

Q So is it a fair characterization of your testimony that OPC has an official position with regard to the time frames that should be applied in a use and useful calculation which is contrary to present law?

A Well, I think they have a difference of opinion. Of course, they do recognize what the law is. And I have prepared my testimony and the used and useful calculations based on that law.

Q And once again, what do you understand the law to provide in terms of a time frame?

A A five-year margin reserve over and above present capacity.

Q Okay. Mr. Biddy, you prefiled testimony in this matter on July 31, 2000?

A Yes.

Q Have any of the opinions or information reflected in that prefiled testimony been updated, modified or otherwise changed since you prefiled that testimony?

MR. BURGESS: You said July 31?

MR. WHARTON: Yeah, that's what I thought.

MR. BURGESS: Okay. I'm sorry.

A To answer your question in a nutshell, no. As you are aware from my testimony, we reserved the hopeful right, if the Commission allows it, to modify our testimony based on information we don't have that we have solicited from Aloha.

BY MR. WHARTON:

Q But in between the time of filing your prefiled testimony and today, you haven't been apprised of any additional information that would cause you to modify or change your testimony?

A No.

Q Have you come upon any new information which you deem particularly relevant or which caused you concerns with regard to your testimony?

A No.

Q Okay. But you're still looking around?

A Oh, yes.

Q What are you doing besides waiting for Aloha to respond to the discovery request that OPC has tendered?

A Well, at this point, that's essentially it. We did take depositions of Mr. Porter and Mr. Nixon. If there's other depositions, certainly I'll probably attend those.

Q Do you have any appointments right now to

meet with anyone at DEP or any other agency?

A No.

Q Do you have any intention right now to review any other files or documentation other than what you've looked at and other than what might be provided by Aloha?

A DEP files you mean?

Q Yes.

A Yes. I would like to review the current due progress report that was not in DEP's file at the time I was there and may or may not still be filed to this date by Aloha. But that's the only thing that I would like to get from DEP, if it is filed.

Q What's the purpose for wanting to review that particular report?

A I want to know the progress on our reduction program, what they have found since the last report, how much area they've covered to date, et cetera.

Q Okay. And that's something we'll talk about.

A Yeah.

Q Mr. Biddy, have you designed and permitted a wastewater treatment plant that includes part three public access wastewater reuse for effluent disposal within the last four years?

A Not within the last four years, no. Four years would be '96, I guess, huh?

Q Yes.

A No.

Q When was the last one that you did design and permit?

A Mid '90s, Apalachicola upgrading their plant to an advanced wastewater treatment plant with effluent disposal to wetlands.

Q Is that the City of Apalachicola?

A Yes.

Q And was the City of Apalachicola a design process you're referring to a part three reuse design?

A No.

MR. WHARTON: Steve -- and, again, I'm sorry to interrupt the flow of the deposition -- do you mind if we carry these out of the room and make a copy of them? And we'll make you a copy too if you want.

MR. BURGESS: Let me make sure.

MR. WHARTON: Let's go off the record.

(Off the record.)

MR. WHARTON: What occurred while we were off the record -- and I hope anybody will disagree with me on the record if they disagree -- is that

(a) we have taken part of the documents which Mr. Biddy brought with him today and have requested that those be copied.

Mr. Burgess and Mr. Biddy have reviewed the documents, and Mr. Burgess has said that some of the documents are subject to privilege under Florida law and perhaps should not have been passed across the table.

And we are not asserting any issue of waiver and don't care to. I would rather the real deal apply. And some of those documents have not been copied.

We have now given Mr. Biddy back his documents. And the documents that we separated out that Mr. Burgess has indicated that we can copy are being copied now.

MR. BURGESS: I'll agree that that's what happened off the record.

BY MR. WHARTON:

Q Mr. Biddy, before you put those back in the stack, what are the nature -- again, I don't really care if you go document through document -- what are the nature of the documents that Mr. Burgess has decided should not be copied or attached? Mr. Burgess described them while we were off the record.

A The first one is two pages of questions and issues that I developed and attached to a report to Mr. Burgess after I had read the initial filing information.

The second is an outline of documents I studied. Again, it was attached to a report to Mr. Burgess just outlining simply what those documents said.

Drafts of used and useful calculations, which is my exhibit TLB-3 that's attached to my testimony. A memorandum from George Sue to me indicating the results of his review of certain parts of the treatment plant, two copies of that. A draft copy of my Exhibit TLB-1 for the collection system.

MR. BURGESS: That may not be privileged.

A Another Exhibit TLB-3, a draft of it. A copy of the exhibit list that's attached to my testimony. A copy of Exhibit TLB-2, which is part of the used and useful methodology, the start of it, the same thing again.

Notes from a further study of documents that we either received by staff's discovery or correspondence between this law firm and PSC.

A set of discovery questions that I have sent to Mr. Burgess asking him to obtain the answers to

these questions. This has been subsequent to my preparation of my testimony. That's a repeat of the first one. That's it.

BY MR. WHARTON:

Q Okay. I pitty so far the reader of this deposition, which I have a feeling is going to be mostly me and you because of the way we are jumping around.

But let me ask you what part of your opinions flowed from work that Mr. Sue did rather than something you did personally?

A I think Mr. Sue and I jointly came to several conclusions concerning the plant. And he probably initiated the thought process on the plant, on the sizing of certain components of the plant.

Q What were those conclusions?

A That the certain components of the plant had been sized for ultimate capacity.

Q And that is as reflected in your prefiled testimony?

A I mentioned it in my pretrial testimony and stated that we were trying to verify that and that we would like to refile revised testimony at a later time to indicate the further used and useful calculations, if those items indeed were verified that they were sized for ultimate capacity, and also that the accountant could

identify somewhere in the filings the cost of those facilities.

Q All right. Let me make sure that I understand your testimony.

Is it your testimony that at the time you filed your prefiled testimony in this matter, you did not have a definitive opinion as to whether or not some of the components of the plant had been sized for a capacity larger than 1.6 MGD?

A Yes, I did have an opinion that there were, I think, four items that had been sized. I wanted to confirm that the four items were the headworks, the filter system, chlorinator and I believe it's the master pumping station for the reuse system.

Q So those were the matters that in your opinion have been oversized, if you will?

A Sized for ultimate capacity, yes.

Q Okay. And therefore, in your opinion, they would not be 100 percent used and useful for that reason alone?

A That's correct.

Q Did you make these determinations based on the work that Mr. Sue did?

A Only partially. We received from FDEP copies of their files, particularly their permit

document, after I had filed the prefiled testimony. And there were quite a few items there that indicate that these items were designed for capacities greater than the 1.6 million MGD.

Q Do you feel that you have all of the information that you need on those four items as we sit here today in order to definitively be of the opinion that they were oversized?

A You see the deposition questions that we have asked Aloha to confirm.

Q You mean the interrogatory questions?

A Yes. We asked Aloha to confirm that those items were indeed installed and confirm the cost of those items.

Q But, again, as we sit here today, does that mean that you do not feel that you have all of the information that you need to definitively be of the opinion that those matters were oversized?

MR. BURGESS: I hate to do this, but I think the characterization of it being oversized is something that he has at least further described as being sized to ultimate capacity.

MR. WHARTON: Okay. Then let me phrase the question that way.

BY MR. WHARTON:

Q As we sit here today, is it correct that you do not have all of the information you believe you would need in order to definitively be of the opinion that at least those four items are sized to ultimate capacity?

A No. I do have enough information for my opinion based on the DEP permit document. However, we have requested confirmation that indeed that was installed and asked for the cost of those items.

Q Do you suspect or believe as we sit here today that there are items other than those four items which have been sized for ultimate capacity?

A Within the treatment plant itself, no. I have no knowledge of it at this point.

Q What about within any collection or a pertinent facility?

A Well, yes, I believe that the reuse system force mains are sized for ultimate capacity.

Q And is that something you're attempting to get additional information on?

A Yes.

Q And the information that you would hope to get would come from Aloha's responses to interrogatories?

A That's correct.

Q And we'll go through those interrogatories.

A Okay. Let's go back to where we were before

we went off on the document trail.

Have you ever designed or permitted a part three reuse facility?

A I'm trying to think. I have not designed any treatment plant that has spray irrigation as its method of disposal of effluent, which I think that answers your question.

Q Okay. And in fact, Mr. Biddy, so that the record is clear, every time I've asked you about that, I've said have you designed or permitted.

A Yes.

Q Would it be true that you have neither designed nor permitted any facility that had reuse as a method of effluent disposal?

A That's correct.

Q Are you familiar with the DEP rules pertaining to the design and permitting of wastewater treatment plants and reuse systems as they existed at the time that Aloha's Seven Springs Wastewater Treatment Plant -- the interim modifications were signed and submitted to DEP? That was in 1997?

A Yes.

Q You are familiar with the DEP rules at that time?

A In general, yeah.

Q How did the rules at that time pertain to the provision of reasonable assurance in relation to permit applicants who were providing facility designs to DEP for their review?

A Are you referring -- by reasonable assurance, do you mean the 100 percent reliability?

Q Well, what does the phrase "reasonable assurance" mean to you?

A It means reliability.

Q Tell me what reliability requirements the DEP rules at that time -- again, referring to that same time frame -- imposed on permit applicants with regard to permits for public access reuse components.

A Well, they require class one reliability, which requires an alternative power source that's reasonably fail-safe such as an emergency generator.

There are a number of other requirements concerning the facilities that carry the effluent to the reuse area. There are numerous requirements concerning the spray area itself, if you're using spray irrigation or golf course irrigation.

Q And so that there's no confusion, we're talking about what the rules said in '97?

A In general, yes.

Q Okay. Are there any other reliability

requirements that you can specifically recall as we sit here right now?

A Obviously I haven't memorized -- it's a very complicated process to design or permit any DEP facility, and I certainly haven't memorized all of the requirements. The biggie is class one reliability though.

Q And can you remember any other component or class one reliability as DEP considered that concept in 1997 other than those you've already mentioned? Not offhand. I would say I haven't memorized all of the requirements.

Q In fact, Mr. Biddy, are you aware that Aloha's Seven Springs Wastewater Treatment Plant interim modifications were -- that that permit was granted by DEP?

A Yes.

Q Would you agree that Aloha's project must have met the department's rules regarding the design of the various elements of the project since in fact it's permitted?

A Sure.

Q Would you agree, Mr. Biddy, that it was apparently the position of DEP by virtue of the fact that they granted the permit that the components that were

proposed in that interim modification permit application were required by the rule?

A Well, I wouldn't necessarily agree with that. DEP takes the position they never look at the used and usefulness of a particular matter.

In fact, the bigger you build it, the better they like it. They don't look at the economy of a system. If you size something for future capacity, they could care less. So, no, I don't agree with that statement.

Q Would you agree that all of the components of that particular application were required by DEP by virtue of the fact that they granted the permit, only you would not agree that they necessarily should have been sized as they were?

A That's a correct understanding of my opinion, yes.

Q Okay. Sir, are you familiar with the DEP rules pertaining to the design and permitting of wastewater treatment plants and reuse systems as they exist today?

A You know, they change all the time, and I can't remember the last time I read the rules. But engineers who are in that business, such as I have been over the years, refresh themselves constantly on those

rules.

And I honestly can't remember the last time I read them, probably in '98 when I was still with Baskerville, Donavan as senior project manager on some of the treatment systems we had. But that's probably the last time, '98.

Q Do you not consider yourself in that business anymore?

A Yes, I'm in the business, but not in the business of designing plants. I am a reviewer of plants, a studier of plants, preparing studies and reports on existing facilities, troubleshooting plants, but not --

In other words, I left Baskerville, Donavan after having been their manager for years and became a sole practitioner on my own. And I do not have a staff of designers and draftsmen and other engineers.

Q You would not seek to undertake such a design project now?

A I suppose I would. But I would have to find me some subconsultants to do those tasks that I just mentioned that I didn't have the personnel for.

Q But you feel that 1998 was the last time that you probably reviewed those rules?

A I'm sure it was because that's when I left Baskerville, Donavan, about September of '98.

Q Can you tell me how the rules pertaining to the provision of reasonable assurance, as you've defined it, are now applied by DEP in relation to permit applicants providing proposals to the department for review for facility design?

A Well, as I stated, they require class one reliability, which the big part of that is backup power systems, fail-safe systems, any number of requirements concerning the actual distribution of spraying of effluent.

Q Is it safe to assume based on what you said before that those requirements change periodically?

A Sure.

Q Can you tell me what reliability requirements DEP rules now impose on permit applicants who want to permit facilities with public access reuse components?

A Could you repeat that?

Q Yeah. Can you tell me what reliability requirements the DEP rules now --

A Class one reliability.

Q Okay. So those are the reliability requirements that DEP rules now impose on those who apply for public access reuse?

A Yes.

Q What are those class one requirements to your knowledge?

A Well, we've gone through those.

Q They're what you've already mentioned?

A Well, that and other things that I say are there that I haven't mentioned. For instance, the pumping station has a spare pump. You have to pump in capacity plus you've got a spare.

There's other items like that in the class one reliability besides the power.

Q Tell me what those are, if you can think of them.

A I can't give you a litany of them because I just haven't memorized them.

Q You've told me the ones you know about as we sit here today?

A The ones that come to mind right at this moment, yeah.

Q Can you explain the difference between the DEP requirements and rules as they pertain to reasonable assurance and reliability for applicants submitting documents for part three reuse permitting review between '97, which we first talked about, and 2000?

A Well, I think they're just much more stringent on the class one reliability.

Q In what way?

A Making sure that you do have backup power considerations. That most of the time means an emergency generator on-site.

That you have reject holding facilities for the plant. That you have spare pumps in your pumping stations, standby pump in case you have problems with one of the pumps. And there are other requirements.

Q I want to make sure that your response is clear though. You believe those are things that are required now that were not required in 1997?

A No. They're just more stringent now. Most of those were probably required in '97. I believe that's correct.

Q So you believe the difference between those particular rules and requirements now as they relate to 1997 is that they are more stringently enforcing the same rules and requirements now?

A Yes, essentially I think that would be correct.

Q Okay. Sir, are you familiar with the USEPA manual entitled "Design Criteria for Mechanical, Electric and Fluid System and Components Reliability MCD-05"?

A No.

Q Are you aware that that document is

referenced in DEP's rules as the standard reference document that should be consulted by the design engineer?

A It well could be.

Q But you don't know that one way or another?

A No, I do not.

Q And, therefore, if I asked you what that standard reference document said about minimum reliability features of wastewater treatment plant components, you wouldn't be able to respond because you're not familiar with the document?

A No. As I've explained, I haven't memorized the rules. And those are the kind of things when you design a plant you just have to go through the requirements.

There are many, many that you have to look up. And that would be one of them.

Q Okay. And I'm not trying to be snide, sir, but the answer to my question is yes, if I went through the reliability features of wastewater plant components as contained in that particular manual, you wouldn't be able to respond to the questions because you're not familiar with the manual; is that correct?

A I haven't read it that I'm aware of in years.

Q Okay. Do you agree that as a general

proposition the rules are becoming more stringent as time goes on?

A Well, certainly, yes.

Q Mr. Biddy, can you tell me what reliability class a wastewater facility design with part three reuse features must achieve?

A I've already said that 15 times already. Class one reliability.

Q Okay. Are the major reliability requirements for a wastewater facility with part three reuse features in Florida anything other than what you've previously testified about?

A Well, as I told you, I have not memorized their requirements. There probably are some areas I haven't mentioned. But the biggies I have mentioned.

Q Those you can think of as we sit here today you have mentioned?

A Yes.

Q Do you agree that if a particular applicant is granted a wastewater permit, that that means that the department's rules regarding reliability of the various elements of the project have been met in the eyes of the department?

A Yes.

Q Sir, are you familiar with the DEP rule that

pertains to the requirement for and development of operation and maintenance reports for wastewater facilities?

A Yes.

Q What's your familiarity with that rule? What do you know about it?

A Operation and maintenance reports are required from treatment plants at various intervals. Further monthly monitoring reports are required. That's not what we're talking about.

But the operation and maintenance reports -- I've forgotten whether it's quarterly or every six months, but it's periodically they require these O&M reports.

Q So you're not sure when a permittee must submit an O&M report to DEP, at exactly what interval?

A Well, in the design of a treatment plant, once you build a plant, one of the items is to present to them an O&M manual. You're referring to it as a report.

At the conclusion of your construction and before they will authorize you to put it in service, you do have to prepare an operation and maintenance manual. Then you do have to do the reports that you've mentioned, the O&M reports periodically as well.

Q Do you agree that the rule which requires

those reports provides that wastewater collection systems should not be evaluated in those reports unless, among other problems, excessive infiltration or inflow is occurring that is resulting in plant operation and maintenance problems?

A Yes.

Q Sir, you stated that you reviewed DEP's permit file for Aloha's interim upgrades when you were preparing for your testimony in this case; is that correct?

A That's correct.

Q Can you tell me if you reviewed the O&M performance report prepared by Aloha's engineer for the Seven Springs Wastewater Treatment Plant?

A No. It was not in the file. I have not seen it.

Q Why was it not in the file?

A Well, I suppose it hadn't been filed yet. Construction was still ongoing as of the middle of July when I was there.

Q So as we sit here today, you have no knowledge of whether or not that report was filed?

A I'm sure it's required to be filed. But I have not seen it.

Q If it's been filed, you're not aware of it?

A That's correct.

Q Okay. And if it's been approved by the department, you're not aware of it?

A No, I'm not.

Q Mr. Biddy, is it correct that in your testimony you stated you didn't agree with Aloha's assertion that the infiltration and inflow being experienced in their Seven Springs wastewater collection system was not excessive?

A I did not agree with that statement at all, no.

Q And if I use the phrase "II," do you know what I'm referring to?

A Yes, I do.

Q And that would be infiltration and inflow?

A That's correct.

Q Okay. What was your disagreement based on? And tell me everything you can that was the basis of that particular opinion.

A Some of the discussions in the reports that Mr. Porter had prepared discussed II problems in parts of the system, some of them to the extent even of subsidence of pavement because of lines caving in and whatnot.

He went on further to say that in one particular small area that they had looked at, they had

found already 140,000 gallons per day of II.

I believe that to be excessive, over and above what would be carried in the system after they eliminate that. And I believe that because they have only done a small part of the system, that they will find substantially more II with their ongoing program.

Q All right. Let me stop you there and ask you did Mr. Porter state that the overall system II was excessive in any document that he filed with DEP?

A No. He stated that it was not excessive, citing some old rules, old reference manuals. It is excessive based on my understanding of current, modern rules.

Q Okay. And I think that's something we'll talk about. You reference that in your prefiled testimony; is that correct?

A Yes, I did.

Q And we'll talk about that with your prefiled testimony.

Is there anything else you relied upon in making your determination that you disagreed with Aloha's testimony that II was not excessive in the system?

A No. I think that's essentially it. The initial findings and the first look at the system, the fact that they've got a two-year program at least

stretching through the year 01 to look at all of these areas and do the reductions.

Q What else would you like to have access to or desire to have access to in terms of confirming your opinion in that regard?

A Well, it would be nice if they were finished with the II reduction program. But that's ongoing and will be finished at the end of next year.

I would like to see the latest up-to-date progress report from Mr. Porter on where they're at with it.

There's one report in the DEP files that was filed in March of this year, the progress of that date. That's also the information he provided in one of the schedules. I believe it was Schedule F of the filing requirements.

Q Sir, let me finish up on that question first. Is there anything else that if you had your preference you would review or have access to in order to confirm your opinion regarding excessive II?

A Yes. I would like to see Aloha go into the system and do nighttime flow insolation studies throughout the system to quantify what II is there.

Q Would you consider such nighttime flow isolation studies to be the very best way to determine II

in a system?

A Yes, if you can catch the time when you have a good rain and plan your flow isolation studies after a good heavy rain at night, two o'clock in the morning preferably until four in the morning when you essentially got all -- any flow would be inflow and infiltration in your sewer.

I understand that they have done that in a little small area that they have identified, but I would like to see it on all of the area. And we could quantify pretty easily then what total II was entered into the system and how much of it was excessive.

Q Is that the normal and accepted way to your mind that a utility would assess II in a system?

A Yes. That's usually the first step before you start televising and cleaning lines is to do nighttime flow isolation studies.

Q In your opinion, what type of condition should exist with regard to rainfall, something you mentioned?

A You mean what conditions with the sewer should exist?

Q Well, in terms of the timing of these particular tests.

A Okay. Well, you try to pick a time when

you've had heavy rain so that there is availability of water to get into the sewer if in fact the sewer has leaks, open joints, broken areas and so on, or the manholes are leaking.

So you won't get an accurate reading unless you do perform these tests after a rainy spell or a good heavy rain.

Q You did say you were familiar with the II program that Mr. Porter is currently engaged in?

A Yeah, to the extent that he's described it in documents I've read.

Q Have you personally designed or implemented an II program of this type?

A Yes, I have.

Q When and where?

A The last one was the City of Apalachicola, and it would have been in '96, '97, that time frame.

Q And what did you determine about the City of Apalachicola?

A It was full of II, full of it. Some of the lines had been put in in the early '40s.

Q And did you personally design and implement --

A Yes. I was the senior project manager on that.

Q So you had a team of persons who worked under your control and supervision?

A That's right.

Q Is it true that down in Apalachicola there are people who have busted holes in the sewers and have the gutters from their roof going in there?

A Yeah, that's true too. That's inflow, as is different from infiltration. Infiltration is the ground water entering sewers. The inflow is either through the manhole covers or illegal connections that you're talking about.

Q Sir, in your testimony, you stated that you believe that an allowable sewer line leakage rate for new PVC pipe with rubber leak resistant joints should be 200 gallons per day, per inch diameter, per mile; is that correct?

A That's correct.

Q Can you tell me what factors affect the allowable leakage rate a sewer should be expected to exhibit?

A What factors affect the allowable?

Q Yes.

A That is the allowable that you just quoted. And you should keep your system maintained to that level.

Q So adequate maintenance would be one factor?

A Sure.

Q What about any other factors?

A To keep it up to those standards?

Q Well, really more generic than that. Not those particular standards, but any particular sewer. What factors affect the allowable leakage for any given type of sewer? You said adequate maintenance was one.

A Well, your question assumes that there is some agency that has an allowable amount that is different from that 200 gallon per inch of sewer per mile. There is not. That is the rule.

So you should keep your sewers well maintained, your manholes well maintained and be diligent about illegal connections and everything else to eliminate the II and keep it out of your system.

Q Okay. When you have said that is the rule, you're referring to the particular gallons per day allowance that you had in your prefiled testimony for new PVC?

A The rule does not mention PVC. That's the rule.

Q Well, what is the rule? I'm confused. And it's probably my own fault.

A The rule was stated in what we call Ten State Standards and adopted then by FDEP. And it simply

says that the leakage exfiltration or infiltration shall not exceed 200 gallons per inch of pipe diameter, per mile, per day in any connection of the system.

MR. BURGESS: Do you have a page?

THE WITNESS: Chapter 30, Paragraph 33.93.

BY MR. WHARTON:

Q Sir, is that a rule that is to be applied to new construction?

A Yes, it is.

Q So do you think that it is valid to apply that rule to preexisting construction?

A Yes. I have seen it applied on occasion. And in fact, one big system very close to the Aloha system it was applied to.

Q Applied by who?

A DEP.

Q Applied in what way?

A Insisted that the system be upgraded to the point of meeting this criteria.

Q Tell me about that. Give me the details of what you know about that.

A Well, right in New Port Richie, there's a system called the Lydrick Utility Services I believe is the full name of it. They had a very large II problem. And they were under mandates from the DEP to eliminate

it.

And they went through a program of identification, nighttime flow insolation and televising, cleaning and repairing the lines to the point where they had an inflow infiltration that was considerably less than 200 gallons per day, per inch, per mile.

Q How big was the Lyndrick system?

A Gosh, a lot of connections, probably 3,000 connections perhaps. And I'm guessing.

Q And in fact, what DEP required that system to do was new construction, put new pipes in the ground?

A No. Repair the old ones.

Q How old was their system, do you know?

A It was so old that they had clay pipe in a lot of portions of it.

Q Do you consider a utility that has clay pipe in portions of it to be a pretty old system?

A That portion that had clay pipes would be pretty old.

Q And you would expect that clay piping to have an II that was, say, much greater than PVC or some of the other materials you're familiar with?

A Yes.

Q Is clay piping about the most prone to excessive II of all the materials you're familiar with?

A Yes, it is.

Q How would you quantify the extent to which excessive II is likely to occur in clay piping as opposed to, say, PVC?

A I would not quantify it. It's simply the clay pipe, which is really terra cotta pipe, has joints that open up. They're not compression joints so they open up.

The clay pipe is very brittle and breakage is common. So it is much more susceptible to II than modern PVC pipe.

Q Might it be as high as two to one?

A I don't know.

Q Are there published manuals or documents which offer an expected leakage rate for clay pipe?

A Clay pipe for old sewers in general, they are. I don't remember reading one that specifically said this is for clay pipe.

Q So you're not aware as we sit here today whether there is any standard or accepted leakage rate that you might expect from clay pipe?

A Not specifically related to clay pipe.

Q Sir, did you give Aloha an allowance for II based on 200 gallons per day, per inch, per mile in your calculations of used and useful?

A Yes. That's about 56,000 gallons per day based on that 35 miles, approximately, of pipe. I am making the assumption that within the system after eliminating the 140,000, that there is still 56,000 gallons of II flowing in the system, which is the allowable.

Q So the answer to my question would be in the affirmative?

A Yes.

Q Are you able as we sit here today to project or quantify what you would expect the leakage rate to be for ten-year-old clay pipes which are laid below a heavily traveled roadway at depths of over ten feet?

A Am I able to quantify that, no.

Q You don't know how much those particular sections of pipe would leak or how much you would expect them to leak?

A I cannot quantify it for you.

Q Are you able to estimate how much you would expect those pipes to leak?

A There are estimates by various authorities that run the gambit all over the spectrum from 100 gallons per day, per inch, per mile up to many thousands of gallons per day.

Obviously it depends on the condition of

that pipe and how well it was installed, whether or not it's had maintenance or breakage or whatever. But it would be impossible for me to sit here and tell you I can quantify some clay pipe system under a roadway.

Q Now, everything that you just said would also be true of PVC pipe too, right? That would depend on how it was installed and what the conditions were?

A That's certainly true.

Q For the area served by Aloha's Seven Springs wastewater collection system, if I ask you to assume that there were some sections of ten-year-old clay pipes laid below heavily traveled roadway at depths of at least ten feet, could you come up with any figure which would give me the gallons per day, per inch diameter, per mile as you did for PVC?

A What do you mean as I did for PVC? I did not do that for PVC.

Q Well, you gave the figure of 200 gallons per day, per inch diameter, per mile, didn't you?

A I did not restrict that to PVC system. That's the collection system. That is the standard for the collection system. It would be clay or concrete, PVC or castiron or whatever it is.

Q Okay. So regardless of the condition of Aloha's collection system or the material with which it

is constructed, is it your opinion that any II that exceeds 200 gallons per day, per inch diameter, per mile is excessive?

A Yes.

Q But, again, without getting bogged down in what you did or didn't say about the PVC, if I gave you those assumptions that you had a section of pipe in the Seven Springs wastewater collection system that was ten-year-old clay pipe laid below heavily traveled roadway at a depth of at least ten feet, could you come up with any number that you would expect to be the leakage rate?

A It would simply be a guess because I have seen in manuals the opinions by various authors that runs the full spectrum of values.

Q And you would expect your opinion would be somewhere within that spectrum?

A Well, I would not want to hazard a guess at it. That's not engineering. I would want to do the nighttime isolation studies within those areas and determine what the actual II was.

Q And if I ask you the same question with the same assumptions but it was 20-year-old clay pipe instead of ten, your responses would be the same?

A Except obviously there would be more II in

older pipe. The older it gets, the more IIs would be in it.

Q But you still don't feel that you would be able to hazard a guess or an estimate or a projection?

A I would not want to quantify it because the authorities that I have seen that quote it have too wide a range in their estimations.

Q What would you need in order to make that quantification?

A I would need some nighttime isolation studies, flow isolation studies after rains.

Q And that's something you don't have as we sit here today?

A No, I do not.

Q If I ask you the same questions with the same assumptions about asbestos cement pipe, your responses would be the same?

A Absolutely, yes.

Q Based on your experience, would you expect that any portion of Aloha's collection system which consists of ten or 20-year-old clay pipe buried at depths greater than ten feet under heavily traveled roadways should be expected to have an II which exceeds 200 gallons per day, per inch diameter, per mile?

A Yes. That's the reason it would need

repair.

Q Okay.

A But you understand I did not restrict my opinion to just clay pipe. PVC pipe often leaks.

Q Right. But you quantified your opinion earlier in that regard that you think in your opinion that 200 gallons per day, per inch diameter, per mile is the limits of what is tolerable? Anything other than that should be considered excessive?

A That's correct.

Q Okay. Can you tell me what a typical flow rate for one ERC is, say, nationwide?

A It varies all over the map. We think in terms of 80 percent of the water that a house receives being returned to the sewer.

For design and rule of thumb, it's 350 gallons per house, per house for residential connection. And 80 percent of that is 280 gallons per day.

Q Would your response be the same for the same question with regard to the state of Florida?

A No, it would not. As I've told you, the flow in different developments varies greatly.

In Florida we have many absentee owners. We have many vacation type folks that spend the summer in the mountains and the wintertime here.

So it does vary quite a bit. It varies to the low side, depending on just how many absentee owners and semiabsentee owners you have in a particular area.

Q While Mr. Porter is writing a note, let me go back and ask you one question about what we talked about with the clay and the PVC.

Would it be a fair characterization of your testimony that for both new PVC or for ten or 20-year-old clay pipes, the limits of what is tolerable, that is, what should be considered not to be excessive, would be the same, and that's 200 gallons per day, per inch, per mile?

A Yeah. It wouldn't matter what the material was.

Q Okay.

A Are you anywhere close to a break point?

Q We can take one. Why don't we do that.

Well, let me ask you one question. Sir, if the number of absentee owners for a given system is a small percentage of the total, would you then think that the 350 gallons per day, per home would be correct for that system?

A Well, that is an old standard that we've used in design because engineers like to be conservative. We're still holding on to that 350.

Modern rules, modern practice is to have as much water-saving appliances in your home as possible, including small capacity toilet tanks, low shower heads, any number of other water-saving devices, so that number is going down considerably. I've seen it way down in portions of Florida.

Q If you were designing a system in Florida today, what number would you use?

A A water system?

Q A wastewater system.

A Wastewater. I would use the 80 percent of 350 or around 280 gallons per day, per household, per ERC.

MR. WHARTON: Let's go off the record.

(Recess.)

BY MR. WHARTON:

Q Well, it seems to be a theme in this deposition, I'll ask you a question that relates to earlier, then we'll go back to where we were.

Right now, today, are you able to quantify, say, by a percentage, or any other method you're comfortable with, what parts of Aloha's collection system that relate to this proceeding are made of what type of material as opposed to some other type of material?

A No, I'm not able to give it a number. I've

heard Mr. Porter say it's a small portion that they've looked at so far.

Q Well, I'm not talking about the II program. I'm talking about if you had to say, well, that system is 2 percent pipe and 98 percent PVC.

A Oh, no.

Q Okay. You couldn't do that?

A I have no earthly idea.

Q What about the same question regarding the portion of Aloha's collection system that we're concerned with in this proceeding as to its age?

A I have no idea other than just generally some of it is older obviously just looking at it.

Q Okay. I think where we were at, Mr. Biddy, was that you had said that you would say a typical flow rate for an ERC in Florida you would probably use the same figure you would use in the United States if you didn't have knowledge that that particular area had a lot of people who were seasonal, and that's 280 gallons?

A Just because engineers are conservative, yes.

Q What about Pasco County, would your answer be the same?

A I would certainly want to sit down and talk with DEP about that because I think Pasco County water

usage is not nearly as high due to perhaps a lot of water-saving appliances and the absentee ownership.

So whatever DEP would permit, that's what I would do. I would go that level. But if you did 280, you would certainly be conservative.

Q Okay. Well, let me follow up on the statement you just made. What variables do you feel are most significant in determining the typical flow rate per ERC in any given region or system? You said water-savings devices was one.

A Yeah. Vacation type homes tend to -- if you've got a lot of them in the area, which we do in Florida in a lot of places, it tends to give you a very low per household average because simply they're not there some months of the year. That's probably the biggest one.

Q Anything else you can think of?

A It affects the flow in a household.

Q The variables that might affect the flow?

A Irrigation systems, the extent of irrigation, of course.

Q Widespread use of irrigation?

A Widespread use of irrigation on a property.

Q Do you know of any of those particular factors that you consider significant in the Seven

Springs wastewater collection area?

A Yes. The first two I mentioned are very prevalent I think there, and that's the water-savings appliances of various sorts and the vacation type homes or absentee ownership part of the year. Those are two of the big ones I would think.

Obviously, there's a lot of areas there that are very nicely landscaped homes I've seen so I'm sure that there's quite a bit of irrigation that goes on as well.

Q Okay. For this particular service area, can you quantify, say, what percentage of absentee ownership you believe there is in terms of --

A No. I have no idea.

Q Okay. What about how prevalent the use of water-savings devices are?

A I would say it's very prevalent because most of it is new area. And all of the new areas, the new homes have the water-savings devices.

Q When you say most of it is new area, could you quantify that in terms of percentage?

A Gosh, I haven't tried to. But it's more than 50 percent new compared to the older areas.

Q Would you say that the older areas would be less likely to have the water-savings devices?

A That's correct, yes.

Q And the newer areas would be more likely to have them conversely?

A That's correct.

Q What about the prevalence of irrigation in that area, could you quantify that?

A No, I could not. I see a lot of lush, beautiful lawns down there, especially in some of the newer areas. But that's all the extent I could say.

Q When you're referring to an older area or a newer area, what do you really mean by that?

A Well --

Q And I guess really, Mr. Biddy -- although, I'm interested in what you're doing and I'll follow up on that -- I mean in terms of time. I mean in terms of the year built.

And I don't expect you to peg it to a day, but generally what's a newer home to you and what's an older home?

A The newer areas are just a few years old, five to none. Some of them are brand new and some of them are being built now. All of these new subdivisions in the southwest portion of Aloha's service area.

The older areas are areas in the north and west portions of the system, some out in the very extreme

east, a big mobile home park. Those would have been there ten to 20 years probably. There may be even some areas in the very west portion that are 30 years old.

Q Do you understand that in that part of Aloha's system that is in issue in this proceeding, that the majority of the homes are less than five years old?

A I would be surprised if that is true.

Q Okay. What about less than ten years old?

A The majority less than ten perhaps, yes. That might be true.

Q Going back to the line of questions I asked you about the national, the Florida and the Pasco County ERC flow rate, do you know what the ERC flow rates are currently for the Seven Springs wastewater collection system?

A I have seen it. I don't remember it right offhand.

Q Would it refresh your recollection if I told you that the per ERC wastewater flow rates for that particular system are 140 gallons per ERC?

A Yeah, that does refresh my recollection. As I remember it, it's 129 point something on the last real data flow.

Q So maybe even lower than 140 gallons per ERC?

A Yes.

Q Sticking with my figure of 140, because 129 would cause me to go back and do some actual figuring, would you agree that that relates to a per capita flow rate of less than 60 gallons per capita?

A Generally so, yeah.

Q Okay. Would you characterize a flow rate of 60 gallons per capita compared to the national average that we talked about? Is it significantly lower?

A Yes, it is.

Q Is it significantly lower than what you would say would be the Florida average?

A Well, that's a difficult question. It depends on what part of Florida you're talking about.

Areas where they have a high concentration of what's called snowbirds or people who have homes in the north and come down here in the wintertime, it would probably be pretty typical.

Q But if you personally were going to design a system in Pasco County, you would use the 280 average?

A Well, I would have to design it for the specifics of the area. My engineers want to be conservative and we want to overdesign because we don't want to design something that doesn't work.

I would say I would go to DEP and find out

what their minimum that they would accept would be. And I would want to design it for the 280, yes.

Q You certainly would not assume that you would design it utilizing 60 or any number very near 60?

A No, I would not.

Q That would not be conservative, would it?

A No. That would be right out on the edge of probably what's there but not the standard engineering practice.

Q If you learned that the Seven Springs area had a small number of absentee owners and you were designing a system for that area, do you think you would use the 280?

A If it had a few, just a few?

Q (Nodding head affirmatively.)

A Yes. I would use the 280.

Q Okay. If you assume for the purposes of my question that the Seven Springs wastewater collection system does have a small percentage of absentee owners, would you agree that the 60 gallons per capita, per day is a pretty low usage rate?

A Yeah. Although, I don't agree with your assumption. But I agree with your statement if you assume that, but I don't agree with your assumption.

Q But if you take the assumption as a given,

then you would agree with the statement?

A Yes, I would.

Q And, again, given that assumption -- I guess first of all we ought to clarify what would you consider a significant percentage of absentee owners as opposed to an insignificant percentage?

A Well, that's a good question. It's hard to quantify.

Q But, again, we're back to you designing this plant in Pasco County.

A Well, engineers like to have suspenders and a belt on everything they do. We tend to be very conservative when we design something.

You know, I don't know to be honest with you what -- if you get over 25 percent, I think it would be significant.

Q Okay. Would you agree that if in fact the per capita, per day flow rates for this system are low, say, compared to the types of averages that you've talked about, that that would indicate that the II rates are lower than you might otherwise have thought?

A Not necessarily. Not necessarily.

Q What's the basis for your disagreement with that statement?

A The return to the sewer of percentage of

water could be even lower than this number we're talking about. The 129 to 140 gallons per day for residents would be even lower than that.

I am confident that there is extensively more II in the system than has been discovered so far. There's 35 miles of it.

As I understand it from Mr. Porter, they have only started -- really got into some of the worst areas and immediately found 140,000 gallons per day. I'm sure that we'll find more as we go along.

Q When you say that you are confident that more will be found and that there is significant excess II in the system, again, that's based upon your review of documents supplied by DEP to Mr. Porter?

A Partly, and partly just based on my experience over the years having looked at a lot of subdivisions, especially where developers have installed sewage collection systems. They are usually installed without good quality control.

The joint makeup is sometimes lacking in being properly done. You usually find some II in subdivision type collection systems, simply because the developers put it in there as fast and as economically as they can.

Q To make sure that the record is clear, you

have reviewed the II reports which have been filed at DEP by Aloha?

A Yes, up through March. I don't know that there's been one filed since March.

Q Okay. Sir, if you prudently designed a plant at 200 gallons per day, per ERC and actually experienced flows of 140 gallons per day, would you believe that the cost of the plant for the difference between 140 gallons per day and 280 gallons per day would be nonused and useful?

A Well, that's kind of a tricky question. The flow rates have been projected through extensive studies by Mr. Porter based on ERC numbers. I'm taking those numbers. They seem to be well-generated.

He projects a build-out of 2.4 million gallons per day. Presently the flow rate is a little over 1.2 million. So it's about halfway built out in terms of flow.

Q I'm told not only it was a tricky question, it was an incompetent question so let me try it again.

If you prudently designed a plant with the expectations of 280 gallons per day, per ERC and then you experienced 140 gallons per day, per ERC, would you consider the cost of the plant for the difference between the 140 gallons per day and the 280 gallons per day to be

nonused and useful?

A The portion that I would consider nonused and useful is the portion that would be over and above the annual average daily flow projected out five years with a five-year margin reserve added to it. Anything above that is considered by OPC to be nonused and useful.

Q But I think what you've done is quibbled with the assumption in my question that the plant design was prudent.

A That's true.

Q You can't foresee any circumstances where you could prudently design a plant of 280 gallons per day, per ERC and then experience only 140?

A You would have to look at each area individually. You can't just use a blanket statement like that, as we've talked about. It depends on the characteristics of the area.

Q Do you agree that this whole issue of II as it relates to used and useful is that if II is lower than you calculated, then used and useful is higher?

A Yes. That's correct.

Q And if II is higher than you've calculated, then used and useful is lower?

A Yes. And you need to understand that this business of how much II is a subject that we're going to

know about in detail -- because a professional engineer is supervising the work of a contractor who is measuring that periodically and it's going through a two-year program.

So this is not something we'll have to guess at by the end of the projected test year. We'll know.

Q And we'll know that because of documents that you anticipate that Mr. Porter will file at DEP on behalf of Aloha?

A Well, he's required to by the consent order.

Q Do you know whether or not the flow information in the MFRs in the case shows annual average flow per ERC of 140 to 150 GPD?

A I think it does. I think it shows 129 point something as I remember it for the last historical year.

Q And that's the flow information in the MFRs you're referring to?

A I believe that's correct.

Q Does that indicate excessive I&I to you?

A You can't tell based on the flow. That's a low flow. It's a low flow per ERC is what you can say about that.

Q Well, you expect to see a low flow per ERC if you had excessive I&I?

A I don't know. It depends entirely on how

many absentee owners, vacation type owners are in there, water-saving appliances, again, the irrigation. There's a lot of factors. You can't just make a blanket statement like that.

Q Wouldn't you agree that generally there is a positive relationship between excessive I&I and higher flows?

A Yes.

Q And that generally there is a positive relationship between lower I&I and lower flows?

A Yes. True.

Q Sir, are you familiar with the PSC and DEP statutes pertaining to recovery of costs for a wastewater reuse project?

A The statute?

Q Yes.

A Generally, yes.

Q And in fact, you testified a little about that in your testimony, right?

A Right.

Q Tell me your understanding of the DEP statute and what it says about cost recovery for reuse related plant components.

MR. BURGESS: Excuse me. For my clarification, can you give me a section citation

on that?

MR. WHARTON: I'm sure I can.

BY MR. WHARTON:

Q And specifically, Mr. Biddy, I am referring to Section 403.064(10), 1999 Florida Statutes.

A My general understanding -- you have to understand I am not a lawyer and do not intend to interpret the statute -- but my general understanding is that reuse facilities are -- I'm adding the words "if they are sized properly "-- are to be considered 100 percent used and useful.

Q That's the only quantification that you're aware of, if they're sized properly?

A Well, that's the caveat I would put to it. I don't believe that the legislature in any way ever intended to give a utility cart blanche to build as large a system as they wanted to many times over the capacity that they needed and have the rate payers pay for it.

Q Is it a fair statement though that that particular caveat is not something you gleaned by reading the words in the statute?

A That's correct.

Q And you said you're not a lawyer and don't intend to interpret the statute. But you are presenting yourself as an expert in used and useful calculations,

correct?

A Yes, I am.

Q And in that regard, you are familiar with the statute, at least to the extent you testified?

A Yes. I realize the statute addresses the issue.

Q Can you tell me what the DEP statute says about cost recovery for reliability related to plant components for facilities that implement reuse projects?

MR. BURGESS: Can we get a cite on that too, John?

MR. WHARTON: That is the same citation as the Sub (10) if you would like to look at it.

MR. BURGESS: Just for clarification, being a different citation than what Mr. Biddy's been talking about with regard to Chapter 367?

MR. WHARTON: That's correct.

A Right offhand I don't know the exact language in the statute, but I know it does address it, yes.

BY MR. WHARTON:

Q That it addresses the issue of cost recovery for reliability related to plant components for facilities to implement reuse?

A Yes.

Q Do you know generally what it says about it, what it indicates?

A Well, to be considered 100 percent used and useful is the way I understand it and the statute reads, with the same caveat that I would add that certainly the legislature did not intend for the utility to take that language and just run wild with it.

Q Mr. Biddy, do you think the legislature made a mistake when they implemented this language?

A I'm not judging the legislature's actions at all. To my knowledge, no court has interpreted that.

I expect when they do, they will come to the obvious conclusion that the legislature did not mean just to give the utility the full authority to put anything in they wanted no matter how big it was and how small their need was.

Q Do you believe that the way the legislature chose to implement Sub (10) that we've been talking about, this provision of Chapter 403, that it was ill-advised of the legislature to do that?

A No. I think it could have been clearer though as to the limits of what they would put on a utility as far as meeting their needs and how much growth factor they would consider reasonable in those facilities.

Q If DEP approves a permit for a reuse project such as this, don't you think that DEP would take into consideration this statute when determining whether to that make that approval?

A DEP never considers economics. The bigger you make it, the more they love it.

Q Okay. So you don't believe that DEP considered this particular provision of 403 when deciding whether to issue the permit?

A As far as the reimbursement to the utility through the rates?

Q No. Just whether or not they took this particular provision, Sub (10) that we've been discussing, into account in the permit process?

A I have no idea.

Q Is it your understanding that DEP does not take into account economics in any way, shape or form in issuing a permit?

A Yes, that's my understanding having dealt with them for many years that they do not care. In fact, they are delighted if you'll overdesign something to give spare capacity as much as possible.

Q Do you think that DEP's orientation in that regard may have changed after this particular subparagraph was put into Chapter 403?

A I have not seen that.

Q Do you have any knowledge that that's not the case?

A I haven't addressed them or asked them specifically the question. I just haven't seen it.

Q Okay. Tell me what you understand that the Public Service Commission statute says about cost recovery for reuse related components for facilities that implement reuse projects?

And, Mr. Biddy, here I'm referring to Section 367.0817, and specifically Subparagraph (3) of that subsection.

A My understanding is the reuse facilities, along with all other facilities, are allowed to be designed to have a five-year margin reserve.

Q Would you agree that that particular subsection states that if a cost is prudent and it's for a reuse project that it will be recoverable in rates?

A Yes, if it's approved. That's the operative word in your statement, "if it's approved."

Obviously if it's double the size of what's needed at the time, I'm sure the legislature did not mean that a utility should get rates to pay for that when they won't need it for 20 years.

Q For the purpose of this subsection, is it

your belief that the concept of prudency is the same concept as used and useful?

A Yes, essentially.

Q Is the phrase "used and useful" ever used in that subsection?

A I believe it is. I know it is in the whole statute, but I'm not sure if that paragraph is.

Q But in terms of Section 367.0817?

A I believe so. I can't quote it word for word. I have it in here somewhere.

Q Why don't you take a look at this.

A Okay. Well, the only word that you would say means used and useful is "prudent." Obviously if it's prudent, it can be recovered.

Q And that's as we discussed earlier, that you believe for the purposes of this subsection is synonymous with the concept of used and useful?

A Yes, for the purposes of this concept.

Q Do you have any quarrel with what the legislature has provided in Sub (3) of that particular subsection?

A They didn't ask me when they passed that law. That's the law of the land. I'm sure it will be interpreted by the courts at some point in time. And of course, we'll abide by whatever that is.

Q But do you have any concerns with that particular provision which was put into law by the legislature?

A Well, I think when they put the word "prudent" in it, they limited it enough to prevent the situation from happening where a utility would install things that were needed many years hence and won't get those rates from the current rate payers.

I believe that language is enough to forbid that. It could be much clearer.

Q Is the concept of prudency something in your mind, Mr. Biddy, which is tied into the five-year horizon or is it something bigger?

A Well, I didn't establish the five-year horizon so I can't answer it in terms of the five-year horizon.

It certainly would be now the five-year horizon based on the law if you design something for five years hence, yeah, it fits the statute.

Q Okay. So is it correct for me to characterize your testimony then that you believe that anything that is designed and implemented which would not be used until after the five-year horizon is automatically imprudent?

A Yes.

Q Do you think prudency would require the engineer to consider marginal costs and providing component facilities now versus future costs of provision of the needed components?

A Some of that, yes.

Q But, however, as you've just testified, to the extent that that consideration led the engineer to include components which would not be used until the day after the five-year period was over, you believe that would be imprudent under the statute?

A Well, that's cutting it pretty fine. You know, the day after the five years is cutting it pretty fine. I probably wouldn't quibble with that at all.

Q What about six months after?

A Well, let's just say that, number one, the policy of the Office of Public Counsel is that margin reserve should not be included in the rates, that there's other rate vehicles whereby that could be collected more equitable such as CIACs and allowance for funds prudently invested. That's the official policy of OPC.

We still don't agree with the five-year margin reserve, but it's the law. So when we're calculating our used and useful percentages, our methodologies changed we add a five-year growth period based on the particular data of the system.

Q I'm asking you though as an expert in these areas whether you believe there are conceivable circumstances where when you were designing a plant you might design and include features which would not be useful until after the five-year horizon and that that would be a prudent thing for you to do?

A Well, you can't be that dogmatic in your statement. I understand what you're saying, that you might reap some cost benefit by designing a larger system now rather than five years from now, that there is some of that economy of scale, let's say, there's some of that in it.

I think it's small compared to what the rate payers are faced with if you design something ten, 20 years out in the future and expect them to pay for those facilities to sit and not furnish that capacity for that length of time.

Q But do you agree that there might be economic reasons why it would be prudent to design components or systems which would not be used within the first five years which would make that decision prudent?

A Yeah. That's a business decision a developer would have to make. That could be, yes.

Q And might there also be technical reasons for doing that same thing?

A I don't think so. I think if you design it five years from now, you can redesign it just as well as you designed it now.

Q What about things like site conditions?

A What about them?

Q Might that make it prudent to design components and facilities that would not be used within the first five years more prudent now as opposed to later?

A You're probably thinking of a specific example, but I can't think of one.

Q Let me see if I can understand your testimony. You would agree that there might be some circumstances where an engineer in a vacuum would prudently design facilities or components which might not be used or useful within the first five years, but that that doesn't matter here because we've got a statute that says five years and that's what matters?

A Well, I didn't couch it in those terms. I said it's a business decision the developer might want to make at that point.

Engineers always consult with their clients on their designs. And the engineer would tell the client that if he could save him some money by designing something for their use seven years down the road and it

might be less expensive now and if the developer were that sure that his growth was going to occur, that's a gamble that he -- you know, that's the reason he's in that kind of business. He would have to make that kind of projection or take that chance.

But it's our position that that should not be in the rate base of current rate payers since they're not benefiting from that. Future rate payers are. And as we say, there are ample vehicles other than the current rates whereby the developer can recover those costs.

Q But you would agree, would you not, that there are some circumstances where the customers would benefit by the implementation of those things now as opposed to later?

A Not the current customers, no. Future customers, maybe, yeah. The current customers would suffer the difference.

Q But the customers overall as a single body, there are circumstances where they would pay less to do it now than to postpone it after the five-year horizon, correct?

A There may be circumstances.

Q And, again, I just want to make sure that I understand this. It is your position that even if an

engineer would be making a decision that would otherwise be prudent in designing or implementing components that might not be used within the first five years, that in this type of case that would automatically be not used and useful?

A That's correct.

Q You state in your testimony that you agree that the new wastewater treatment and reuse facilities constructed as part of this project were required to comply with DEP rules; is that right?

A Certainly.

Q And how is that? How did that come to be? Is it correct that DEP said to Aloha you would go to reuse?

A There is a consent order between Aloha and the DEP spelling out all of the improvements of the plant, class one reliability they are going to have to install, the increase in capacity, the elimination of the excessive II, other items.

Q Okay. But at some point, Aloha has been compelled by DEP to go to reuse; is that correct?

A Yes, to eliminate the discharge to the bayou or creek that's there.

Q And in order to implement that reuse system, DEP told Aloha they were going to have to modify the

plant, correct?

A That's correct.

Q And that's what they're doing in this case?

A In addition to extending the capacity of it, yes.

Q And let me ask you something about something you just testified about. As we sit here right now, are you sure that consent order ever mentions the word "excessive II"?

A It mentions II. I'm not sure the word "excessive" is used.

Q Okay. Are you familiar with the design of wastewater collection and transport system components?

A Yes.

Q What factors influence the cost of constructing those types of facilities?

A What factors?

Q Yes.

A Number one, depth of cut for a gravity system; number two, distance from the treatment plant and any requirements for pumping facilities; number three, types of materials used. I'm sure there are others, but those are the big ones I can think of right now.

Q What about sizes?

A Of course.

Q How do the construction costs of piping materials vary from one size to another?

A In comparison to the labor to install it, it's small.

Q Okay. So you would agree that the construction cost difference between putting in, say, a ten-inch pipe, a ten-inch PVC pipe and a 12-inch PVC pipe on the same project would be small?

A Yes.

Q How about a ten-inch PVC pipe and a 14-inch PVC pipe, that would be small?

A I don't know. I would have to look at the prices. But generally speaking, going up a size you don't -- you know, a size usually is two inches at a time. You don't experience much cost increase, a dollar or two per foot. As it gets on larger, you would have to look at it and see.

Q So as you go up in pipe size, you have significant reduction in the marginal cost of per inch?

A I wouldn't say that. I don't know right offhand.

Q Do you know the difference in the carrying capacity between an eight-inch pipe and a ten-inch pipe?

A Not right offhand, not off the top of my head, no.

Q Is it significant?

A There is a good difference, yes, in a ten-inch pipe because gravity requires a smaller slope, and sometimes we use it for that purpose.

Q What about between a ten-inch pipe and a 12-inch pipe?

A There's a difference of course. A 12-inch pipe would carry considerably more capacity.

Q And would you agree, therefore, then that the marginal cost of installing these pipes is less in terms of their carrying capacity?

A Perhaps, yes.

Q Is less energy required to move the same quantity of wastewater through a pipe for a larger pipe than for a smaller pipe? In other words, do you need less energy to move wastewater through a 12-inch pipe than a ten-inch pipe?

A Are you talking about a force main system?

Q Uh-huh (affirmative.)

A That is true.

Q So you would expect then the larger pipe to result in energy savings over time?

A Slightly.

Q How slight? Can you quantify it?

A I don't know. I would have to look at it.

Q Do you know whether or not the energy savings that would be experienced in that scenario might wash or even exceed the cost of installing, say, a pipe that was two inches bigger?

A Two inches, I don't know.

Q You don't know one way or the other?

A It's certainly possible with two inches. In this case, we're not talking about two though. We're talking about the 24 inch versus a 12 inch on a reuse force main.

Q Could there be other considerations why a utility might use a larger pipe in a reuse system?

A Besides more capacity you mean?

Q Yes. How about technical reasons?

A Right offhand, I can't think of a technical reason why you would necessarily go to a big, big pipe versus a smaller one.

Q So other than capacity reasons, you can't think of any other reasons?

A Yeah, that would be the primary reason, capacity. There may be some advantage to it as far as pumping the same quantity. But the reason utilities go this large of diameter pipe is to have that capacity available.

Q Well, energy cost is one we just talked

about, right?

A Some amount.

Q Is that all you can think of right now?

A Yes.

MR. WHARTON: Let's take a break. Let's go off the record.

(Lunch recess.)

BY MR. WHARTON:

Q Mr. Biddy, let me ask you a couple of questions about the documents that you did not bring. I have now indicated to you the scope of the document request. And would you agree that it was pretty broad?

A Yes.

Q Pretty encompassing?

A Yes.

Q Is it a fair statement that the documents that you did not bring with you today exceed in the volume of documents you did bring?

A Yes.

Q And you have some documents in there that Mr. Sue provided to you that you did not bring?

A I think we withheld those here, two or three reports, yes.

Q You're not sure if you have anything --

A I don't think I have anything in my office

that he did.

Q I have conferred with your counsel, and it would be our position that whenever the deposition ends today we would reserve the right to bring you back and to talk to you about the rest of those documents and that you would produce them at that time.

A Fine.

Q Whatever you got to do.

A They're available.

Q All right. Let me jump around a little bit with things I talked about with my people at lunch.

I guess first of all, I want to ask you a question about this Subsection (10) of Section 403.064, Florida Statutes.

And I want to read to you something there, Mr. Biddy, and that is that Subsection (10) provides that the PSC shall do several things as listed in the statute. And it ends in the phrase "To recover the full, prudently incurred costs of such facilities and facilities through their rate structure."

A Yes.

Q Based upon your earlier testimony about what DEP does and does not look at in terms of economics, would you say that it's a fair statement or do you agree to the extent when DEP looks at prudency they are looking

at technical prudency rather than economic prudency?

A Yeah. They don't look at the economics of it.

Q They're just assessing technical prudency?

A True. But that's not what that -- what prudent means there is economics.

Q What's the basis for that statement? How do you know that's what the legislature meant there?

A It seems obvious.

Q Does DEP assess technical prudency when they are issuing a permit?

A I don't know if they ever called it that. I've never seen it be called technical prudency. "Technical correctness" is the operative word.

Q Is that the same thing by another phrase?

A I don't think so. Prudency by what the word means refers to dollars, economics.

Q So you would not be able to assign any meaning or understanding to the phrase "technical prudency," that something was prudent technically?

A I don't think so.

Q And given that, I would assume that you also then would be of the opinion that that isn't something that DEP looks at?

A I don't think they look at the prudency of

it. They look at the technical accuracy of what is done.

Q But they don't make a judgment about what you have proposed or what you have designed is prudent in any way?

A No, not to my knowledge. They're delighted if you make it bigger and better.

Q Do you think if a statute directed them to make that determination they would then make that determination?

A Obviously if a statute directed them to, they would.

Q Mr. Biddy, do you agree as a general proposition that the overall costs of facilities might be higher if designed only for a five-year horizon as opposed to a seven or an eight or a ten-year horizon?

A No, I don't agree.

Q You don't think that there are any circumstances under which designing a facility to only meet a five-year needs horizon would ever be more expensive than designing it to meet, say, a seven-year need horizon or a ten-year need horizon?

A No.

Q So you think in every single case -- what about five year versus ten year? Do you think in some cases it is going to be less expensive to design a

facility to meet the needs for the next ten years as opposed to designing it to meet the next five years and then after that five-year period designing it to meet the next five years after that?

A Well, you're changing the question now. I didn't understand that you meant the next increment.

Q Let's go with my last question.

A Yes, there is some economy of scale. Where it breaks at, five, seven to ten, I don't know. It depends on the particular type of plant and particular type of equipment.

There is some economy of scale so that the future customers or flows would be less expensive than it would be to duplicate a five-year plan. But that's somewhat minor compared to the rates that the existing customers have to pay for those kinds of overdesigns.

Q Can you think of any technical reasons to do one ten-year project as opposed to two five-year projects?

A Technical reasons?

Q Correct.

A No.

Q But you would agree that there are circumstances where it is less expensive to build one time for ten years as opposed to twice for two five-year

increments?

A As I explained, there's some economy of scale on some items.

Q You would agree that many of today's customers are also going to be the customers five years from now, right?

A Yes.

Q Don't you think those customers are going to be better off in the long run if the rates are lower because the facilities put into place were designed for the most economical horizons possible?

A I don't think that's true.

Q Why not?

A Well, I'm not an economist, but if the rate payers are having to pay excessive rates for five years and after the fifth year it's somewhat less expensive to them, I don't think it would catch up.

Q All right. Well, let me give you then just some hypotheticals, and just respond to them within your expertise.

If it is going to cost 30 percent more to design a given component if you do it in two five-year increments as opposed to doing it in one ten-year increment, do you think the customers are better off in the long run if you still do it in two five-year

increments?

A Without analyzing what the rates are, what the cost of money is and all of the economic considerations, it would be impossible for me to say.

Q So you don't know one way or another as we sit here right now?

A No, I do not.

Q Then how is it that you have repeatedly testified that you believe this five-year horizon is an appropriate horizon?

A I didn't say that. The law requires it.

Q Okay. But in your opinion as an expert, you don't necessarily think in every case that it's the appropriate determination of what was or what was not prudent to design and construct; is that true?

A Well, engineering design is one thing. Rate making is another entirely. The OPC decision on rate making is they are opposed to margin reserve in any form and that there's other vehicles whereby the utility can collect those excess capacities.

As an engineer, you design it for as much as you can. Engineers, as I explained before, are very conservative. We like suspenders and a belt. Sure, we like to design more.

Q Mr. Biddy, that OPC position has been

drilled in to you like the Pledge of Allegiance to a second grader. You have said it about ten times today. But I want to know your opinion.

Are there cases where as an engineer it is more prudent than not to design for horizons that exceed five years?

A I honestly don't know. I would have to analyze each case individually to see. You would design it for the most cost effective situation for your client and discuss it with them.

If it's more cost effective to design it for a seven-year horizon, obviously you would tell them that. You would analyze those kind of things on each project.

A five-year margin reserve is required by law, and that's all OPC will agree that you should design. And as a spokesman for OPC, it's all I will agree that you should design excess capacity for.

Q Do you agree that within the parameters of your expertise that determining what the most prudent horizon to design and construct a plant for, that in that process there's nothing magical about a precise five-year horizon?

A No, there's not.

Q But you interpret that as that's what the statute gave me and that's what I go with?

A It's a mandate, apparently, from the legislature that you include the capacity for a five-year margin reserve, so we do so.

Q But it's not a period that comes from your expertise as an engineer. That would be more flexible based on your experience if the statute didn't say that?

A Well, as an engineer, of course, you have to balance your best judgment on future capacity that you're designing for versus the client's budget and what the eventual cost effectiveness will be. So you can't just set out a hard and fast rule.

Q Okay. Although, that's what the legislature's done apparently.

A That's right. They certainly have.

Q Okay. So even, Mr. Biddy, taking yourself away from the concept of designing or building for a client, just based on your own expertise and what you know about used and useful in this process, if you were designing and building a plant that would be in the best interest of the rate payers, you would agree, would you not, that there's nothing magical about the five-year horizon?

A No. And there's nothing magical about going that high either.

Q It could be lower?

A Perhaps two years, perhaps a year and a half.

Q It could be shorter or longer?

A Whatever.

Q But you do agree with my statement?

A Yes, I do.

Q What's been your experience in designing other projects? How long have you considered in terms of designing and building facilities that are similar to this as the appropriate horizons?

A Well, again, it varies with the client. Cities typically will go many years out in the future. They're not regulated. Whatever the rate necessary to defer the cost of that, they simply charge their citizens.

I have seen ten-year pictures looked at. I've also seen no years, no growth looked at from the standpoint of like a subdivision, for instance, a major subdivision if you're designing a plant for to meet their needs and no growth in many instances. So it varies all over the map.

Q So cities don't have this five-year horizon?

A No. Cities are not regulated so they can have larger growth periods in their designs.

Q And do you think that cities consider

economics and costs, if you will, when determining what the appropriate horizon to build for is?

A Well, I'm sure they should.

Q Okay. And it's been your experience that without any sort of a statutory five-year horizon, they have sometimes chosen to build to horizons longer than five years?

A Yes.

Q And do you think it was prudent for them to do that in those circumstances?

A You would have to analyze each one on a specific basis. In some instances, yes. I can see instances where it would not be.

Generally speaking, the DEP rules change so rapidly that you're probably better off keeping the horizon as short as possible and being sure you keep up with DEP because the requirements for sewage treatment plants have changed so rapidly over the history of DEP's existence.

The shorter horizon probably puts you in a better position from the standpoint of being able to meet those requirements.

Q And yet DEP itself has no rule or statute that requires that, does it?

A No.

Q What kind of planning horizons are discussed or recommended in the standard engineering handbooks you're familiar with with regard to the design and construction of these types of plants?

A Oh, I think you've got the whole spectrum. Certainly it's up to 20 years. I would say zero to 20 years. It depends on the need. You do a population projection the first thing.

Q Is it a hard and fast formula though that spits out some horizon?

A No.

Q There's a phrase in the law, "reasonable men can differ." Would you say the same thing is true of engineers, that reasonable engineers could differ on what the opinion of prudency is in terms of that type of horizon?

A Yes. I think that's certainly true.

Q Do you know whether FDEP references any particular standard engineering handbooks in their rules which talk about these types of horizons?

A Yes. Ten State Standards of which I quoted you the II portion of it a little bit earlier.

Q So would you agree then that since DEP references the handbooks and the handbooks have standards for establishing these type of appropriate horizons, that

in fact then they are referenced by DEP, at least indirectly?

A I think DEP has adopted the Ten State Standards in most instances. I'm not sure if they have adopted their planning horizons or not. They speak in terms of a five-year horizon.

Q Let me talk about your own, though, experience in this case, Mr. Biddy. Is it true that you have undertaken no in-depth analysis of that particular issue because the five years was a given in your mind?

A The five years is certainly the maximum that we believe, we being OPC, believe should be included in the rate base.

Q And therefore, have you attempted to analyze in depth whether you believe that the appropriate horizon for this particular plant was, say, four years or seven years or eight years?

A I haven't done so.

Q And that's because to your mind, the five years was a given either by the law or by this OPC policy you've talked about?

A Well, I don't know what was best for this plant from a cost effective standpoint, whether it was three, whether it was two, whether it was seven or five. I'm saying the capacity of five years is required by law,

therefore, that's what we've held to.

Q And just with regard to that specific concept, the fact that you understood the law to contain that requirement avoided the need for you to do any kind of in-depth determination of the appropriate horizon, correct?

A Well, that was not my job to do that.

Q You wouldn't have done it even if the law didn't say five years?

A No.

Q Okay. Do the types of documents that mention or reference appropriate horizons for these types of plants that are standard manuals referenced by the DEP rules, are those some of the documents that were in the documents you showed us today?

A Yes.

Q Do you know what those books say about planning horizons?

A I think they vary. But in general, they are fairly long term. The crux of the whole planning horizon is population projections.

If it's an area that's very slow to no growth areas, it hardly matters as long as you have some extra capacity. If it's in fast growing areas, then you may want to extend that horizon on out.

But I would say you have to balance the economics with the need, making sure you have the capacity and that you can get future capacity built in time to serve the growth that you project will occur.

Q Do any of those standard reference manuals suggest an appropriate five-year horizon to your knowledge?

A I don't remember five years being mentioned in there.

Q In your opinion, sir, and in a vacuum, forgetting the statute and based on your expertise and experience, for a plant of this type and size, would you consider a five-year horizon a relatively short horizon?

A No, I wouldn't. Developers are in the business of developing and making money. People who serve those developments such as utility companies must be prepared to match whatever the growth rate is. So there are on a short fuse.

And they are well compensated for that. So the fact that they've got to continually upgrade I do not believe is a big detriment to their company.

Q Wouldn't it be awful expensive for the customers though if a utility like Aloha only upgraded, say, for a year in advance?

A It depends. It depends on how much you're

talking about on each upgrade and how much the growth rate is and what the flow increase is for that year. You know, you have to analyze each one on a cost effective basis. It would be impossible for me to say that.

Q And it just varies case by case?

A Yes, it does.

Q With regard to the four components or the four categories of components that you said you had positively identified had been sized for ultimate build-out, have you attempted to quantify whether there was any cost savings or economy of scale including those now as opposed to doing it now and doing it again in five years?

A I have not.

Q Okay. So you really don't know whether the fact that Aloha has put in those four components that you know about that were sized for ultimate capacity, whether or not that ultimately would benefit the rate payers, say, over a ten-year period?

A I have not made that comparison for the rate payers ten years down the line.

Q Okay. In that response, are you referring to the rate payers ten years down the line?

A Yes.

Q If a utility in fact constructs this

capacity past the five-year horizon and the Commission adopts this OPC position that anything built for capacity beyond the next five years can't be recovered through rates, how would you understand the utility would be able to recover those costs?

A The carrying cost of those dollars can be recovered through allowance for funds prudently invested, just the carrying costs, the interest on that money.

And at the appropriate time, if the utility is sure of its projection so that the need will in fact be there seven, eight, nine years from now, it can be put in the rates.

Q What if the Commission decides that the statute requires that they recognize facilities and rates rather than AFPI charges?

A Now, repeat your question.

Q I could read it again.

A I don't know what your question is. I understood the statement but not what your question is.

Q What if the Commission determined that those costs could not be recovered through AFPI, can you think of any other method that costs could be recovered?

A Perhaps CIACs at some point in time could cover part of it. I'm not really a rate maker. The accountants can figure that out, I think.

Q Do you understand that utilities recover investment on CIAC?

A Yes.

Q So you don't consider yourself an expert in rate making?

A Not on the economics and the accounting part of it, no.

Q Do you know for a fact that your testimony that recovery by qualifying just the CIAC might be a possibility?

A I do not know. I know that those are two vehicles that the Commission has authorized utilities to recover that kind cost and the CIAC allows for funds prudently invested.

Q Based on the opinions that you've rendered and on your understanding of these statutes that you've testified and the Commission practice --

MR. WHARTON: I want to take a five-minute break.

(Recess.)

BY MR. WHARTON:

Q Mr. Biddy, do you agree that under your reading of the statute and under your understanding of this concept of prudency and used and useful, that the only way a utility can be sure that it will recover all

of its costs through rates is to not build facilities other than those for capacity to needs within the next five years?

A Well, I think I explained that earlier, that there are other vehicles that the Commission has allowed in the past, which was the CIACs, which do include an allowance for funds prudently invested, carrying costs for that extra capacity facilities.

That's been done in the past. I see no reason why it wouldn't be done in this instance.

Q So it would be your understanding that any of the facilities Aloha is proposing which you have rendered the opinion are not used and useful, Aloha would be able to recoup that investment through rates through some other vehicle?

A Not through rates, but through hookup fees and the CIACs that are paid by those hookup fees to the utility over a period of years, which CIACs would include the allowance for funds prudently invested for carrying costs of this extra capacity.

And you would have to divide up the cost of the plant and decide what portion was for the five years and what portion was for the rest of it and construct your rates accordingly.

Q Do you have a copy of the statute with you?

A Which one?

Q The 367.081, the rate statute.

A Yes.

Q Why don't you take a look at that.

A Okay.

Q You testified earlier, Mr. Biddy, that you understand that any construction or plant that is intended to serve customers who will only come on-line after a five-year horizon cannot be used and useful and by definition cannot be prudent; is that right?

A Yes.

Q In point of fact, if you look at Subsection (2)(a)(2) of Section 367.081 --

A (2)(a)(2)?

Q Yes. It's confusing.

A Yes, I see that.

Q That actually talks about what the Commission shall consider to be used and useful in the public service, correct?

A Yes, it does.

Q And it says down there at Sub (b), Property is needed to serve customers five years after the end of the test year?

A Yes.

Q And then, Mr. Biddy, in Sub (c), it actually

refers to such property is needed to serve customers more than five full years after the end of the test year used in the Commission's final order only to the extent that the utility presents clear and convincing evidence to justify such considering evidence; is that true?

A Yes.

Q Given that language in the statute, wouldn't you agree that this five-year horizon looks more like a minimum than a maximum?

A No. It's an exception to the rule over five years. But it has to be proven by the utility that there's real good reason such as perhaps economy of scale, whatever.

But if you've got clear and convincing evidence that you're putting in something that's prudent after the five-year horizon, that's an exception to the five-year rule.

Q So if I have come in with a plant that I have projected is necessary to serve customers three years after the end of the test year, is it your understanding that I've satisfied this language, the property is needed to serve customers five years after the end of the test year?

A Well, it includes all lesser years as well, I believe.

Q Okay. That's the way you would read that?

A Sure.

Q Let me ask you something about the way that you calculate these used and useful percentages. Let's say hypothetically that a blower costs $200,000 and that that's what's needed to serve customers who will be on-line five years down the road.

A All right.

Q Let's say that a second blower only costs $50,000, so $250,000. Do you think you should get 100 percent of the $200,000 blower that was necessary to serve the five years or do you think you should get some used and useful percentages of the two blowers together, the 250?

A I think the additional cost of the $50,000 should be set up in a rate based -- not in the rate based but in rates that would allow the utility to recover through CIACs, allowance for funds pruduently invested for everybody to hook up in the future for this excess capacity.

That's an example of a prudent design of a facility beyond that capacity. But the way it's collected, it should not be in the rate. Five years is a long enough horizon for the existing rate payers to pay excess capacity.

Q All right. So let me understand then what you're saying. Are you saying that in every case the utility should get 100 percent of what was invested as necessary to serve customers available at the end of the five-year horizon?

A I believe that's a fair statement, yes.

Q Okay. Let's assume, Mr. Biddy, that in fact you put in the one lower for $200,000 and five years later it became necessary to install a second blower and that the cost of that blower had gone up to $200,000 instead of only 50,000 extra dollars as my original scenario.

Would that make you revisit whether the initial decision was prudent or not?

A Well, I explained to you that that's an example, if you could get that kind of economy scale -- and I think it's farfetched that those kinds of differences would be there -- but if you could, then that's certainly an example of a prudent investment that you should be able to recover through an allowance for funds prudently invested in CIAC.

Q But still you would not be able to recover through rates because you believe there's a set five-year horizon on that?

A Well, I think it's the law and I think it's

a policy. I think it's a very generous policy to the utilities.

Q Based on this policy of OPC that you've testified about several times today -- first of all, do you agree with that policy?

A From a rate-making policy, yes.

Q But necessarily from in a vacuum as an engineer?

A Well, engineers think in terms of being very conservation. From a standpoint of protecting the citizens as to what they have to pay for their water and wastewater facilities, yes, I agree with that statement.

Q If in fact that policy were state law and practice, would you agree that a utility would always be acting prudently if it only constructed a plant for a maximum of five years, regardless of the long-term cost to the rate payer?

A Yes.

Q So even if the shoe were on the other foot here and OPC came in and their case was based on the fact that if we had constructed enough plant for the next eight years we would have saved a lot of dollars over those eight years, you would still say that this OPC policy you've talked about and the scheme as you understand it under the law is that it would have been

prudent to have only designed it for five years?

A Well, I told you that was an example. If you saved a bunch of money in a prudent decision and that the vehicle by which the utility collects that includes the word "prudent," it recognizes an allowance for funds prudently invested, and how that works out with the accounting carrying costs and how much is put in the CIACs at the time, it can be fully collected and the utility is not hurt in the slightest, you just have to wait for sure of their projections -- you know, it's a business decision.

Q But let me ask you again, if in fact as an engineer it appeared to you that it would have been more economically prudent to have designed it to, say, a ten-year horizon, do you believe under the OPC policy you've talked about and under your understanding of the law that it would still have been prudent for the utility to have designed only to a five-year horizon?

A That's what the law requires and that's what it should be designed to, yes.

Q And you think it would be prudent given that law?

A Yes, prudent in accordance with the law.

Q And in accordance with OPC's policy?

A OPC does not have a five-year policy. They

acquiesced to the five years.

Q Are OPC's policies recorded in any kind of a book or manual? I want to make a public records request for that baby.

A The public counsel has set those policies.

Q Based on his long experience?

A Yes. And his protecting of the rate payers and the citizens of the state.

Q How is the sizing of wastewater plant components determined, by an engineer?

A By the flows. Yeah, by the engineer.

Q Well, when you say by the flows, how do you determine what the flows are going to be?

A You have to do population projections and then based on historical flows per ERC you can project out what the flows will be of your horizon and you're designing for.

Q And an essential requirement of that process is determining how far out you want to build?

A Sure.

Q And, again, in a vacuum as an engineer, you would agree an essential requirement of that process is deciding what's the most economic horizon to build to?

A Yes, in keeping with the law. Of course we're not talking in a vacuum here so it's hard for me to

answer your question in a vacuum.

Q That's true. But I just mean if you were designing a plant and you weren't constrained by Chapter 367.

A Yes. I would design it for the most cost effective way, depending on whatever horizon it was.

Q You would run some different scenarios --

A Sure.

Q -- to see whether the most cost effective was three, five, seven, ten?

A Sure.

Q And any prudent engineer would do that?

A Certainly.

Q What factors must be taken into account when master pumping stations are sized during the design process?

A Primarily flow.

Q Once you've determined how far out you want to build and what your growth projections are, then you just back it up?

A You just compute the flows based on how many hookups you're going to have and so on, how many gallons you've got to pump.

Q Mr. Biddy, have you personally ever participated in the start-up and ongoing operation and

maintenance of a new wastewater treatment plant of the complexity of the Aloha facility?

A The start-up and training of people and so on?

Q Yeah, the start-up and ongoing O&M.

A I don't think of that size I probably have not. I've done a number of package plants that are less than a million six but not of this size.

Q For a plant of this size, can you tell me what specific O&M factors and considerations are necessary to bring the plant up to speed at the very beginning and to keep it there? What do you need to worry about?

A Everything from the entrance at the headworks all the way through to the pumping station that they reuse at the end of it.

Every component has to be tweaked to get the desired result in each one of the processes of the treatment of the sewage. There's technical rules for each one of them.

Q Would you expect a plant like this to work just perfectly from the very first moment that you put it into service?

A No. But certainly the contractor is going to install it as nearly to your plans as possible. And

if you design those plans and told him the proper setup of the plant, you'll be close to it. But you will have to tweak it. There's no question about it.

Q And specifically, Mr. Biddy, what types of things are you going to need? You're going to need properly trained operators, for instance?

A Sure.

Q What other types of things are you going to need from the very beginning?

A Well, you're going to need flow rates through your digesters and clarifiers, your proper return of sludge and a context stabilization mode.

Each part of the plant that the sewage flows to in its next step of treatment, including sedimentation and filtration and pumping needs to be done so in a manner that you will get the required effluent limitations, acquired flow so that -- this is subject to -- requires an operating manual to tell the operators generally what range to set these things, depending on the conditions.

Q What kind of work tasks are going to be necessary? What are human beings going to have to do in there?

A They go in and adjust values primarily and flows, primarily flows, be it air, be it the liquid

itself. They are primarily adjusting valves.

Q I think you had referred to operations manuals. Are you also going to have maintenance manuals?

A Sure.

Q Can you tell me what types of maintenance would be necessary to bring on-line and bring up to speed and keep the type of plant that Aloha is proposing?

What would have to be done from the very beginning and then done continuously?

A Well, it would be good to practice preventive maintenance on everything. All of the mechanical equipment should be oiled and greased regularly to keep things clean, don't let buildup of any kind of rust or anything occur on the machinery or tanks, whatever.

Perhaps periodically they're going to shut down one of your pumps in the pumping station and take a look at it since you have a spare. And that's one of the reasons you have a spare.

Q What kind of maintenance tasks are normally going to be covered by equipment manufacturers' warranties?

A For maintenance tasks?

Q Yes.

A I think after they get through start-up,

they're finished except for defects.

Q Okay. To what extent do manufactures' warranties cover preventative maintenance items?

A I don't think they do.

Q Sir, when you reviewed the DEP files, I think you said you reviewed this 1994 consent order?

A Yes.

Q Would you say you're fairly familiar with that document?

A I read it, yes.

Q Did that particular consent final judgment -- I think is what it was actually entitled. Does that sound right?

A Amended, I believe, consent final judgment, wasn't it?

Q Okay. Does that judgment in the subsequent amendments require Aloha to undertake the wastewater plant modifications that we're talking about here today?

A Yes.

Q Have you reviewed the DEP permit for this project?

A Yes, I have.

Q Does that particular permit require the construction of all of the elements of this project?

A Yeah. And I want to qualify. I just

answered yes to the other question and I'll answer yes to this question, but I will not answer yes to the size of the equipment.

Granted, it was approved at this size. But it would have also been approved at lesser sizes.

Q You're speculating now, aren't you, sir?

A On those four items I'm talking about.

Q But that's speculation on your part?

A No. I think it's based on my experience with getting permits from DEP.

Q Let me understand something though. And I think that I did this earlier, but we'll do it again quickly.

DEP told Aloha they must go to reuse?

A Yes.

Q And in order to go to reuse, you have to have class one reliability?

A Yes.

Q And in order to have class one reliability, Aloha needed to upgrade the plant?

A Yes.

Q And that's the permit application that Aloha did file with DEP?

A Well, the permit is for two purposes. One is for class one reliability. The second was for

bringing to capacity from 1.2 to 1.6 million gallons per day.

In the process of doing that -- some of the components were designed for an ultimate capacity of two-and-a-half million gallons per day, that being the headworks and the pumping station.

Two of the other components had previously been designed for ultimate capacity of 2.4 to 2.5 million gallons per day, that being the chlorine contact chamber and equalization tank also.

So to answer your question, DEP did require it, the things that they have done, but not to the size extent that they designed and installed.

Q All right. Let me approach it this way: Tell me every component of this system that you believe Aloha proposes to install which was not required by the DEP permit.

A The size of it you mean?

Q Well, first of all, are there any components or portions of the system which you believe Aloha proposes to install which were not required of the DEP permit?

A No. I think all of the components are required. I just think the sizes of four particular items within the plant as permitted and as being

installed as we speak were sized for ultimate capacity.

I think I can name those four. If you want me to go through them, I will.

Q No. They're the same four that you testified about?

A Yes.

Q And you don't believe that DEP made any judgment one way or the another about the size of those components?

A I'm sure they were happy that they were that size. But they're sized, as I say, for 2.5 million gallons per day. It will last until -- supposedly, according to Mr. Porter -- the build-out number of this whole utility and service area.

Q Does the permit specifically state that the new modifications require or are needed to provide class one reliability needed for part three reuse?

A Yes.

Q In your review of the DEP file, did you review documents in which DEP discussed sizing of units and reasonable assurance that the department wanted?

A No. I didn't read those documents.

Q Nothing to that effect?

A No.

Q So that we're clear, the permit does state

that the capacity of this facility is 1.6 MGD, right?

A That's correct.

Q Mr. Biddy, do you believe the Commission was wrong to include as 100 percent used and useful the first two phases of Aloha's reuse project in 1997?

A I'm not sure whether it was -- I don't know whether it was 100 percent used and useful or not. Subsequent to that, they have installed some very large line, such as 24-inch line going to the reuse area, and a pumping station that's sized for it as well.

Those parts should not be considered 100 percent used and useful. Or if you want to use the other test, that they're not prudent from the standpoint of the most cost effective thing for the five-year-out capacity.

Q Let me ask it this way: Was it your intention that any portion of your testimony would apply used and useful adjustment to facilities that the Commission had previously found 100 percent used and useful?

A I'm not sure what they were. I can't answer that question. I don't know what they found 100 percent used and useful before.

Q So it may be that some of your testimony --

A Could be.

Q -- does address facilities which the

Commission had previously found to be 100 percent used and useful?

A Could be.

Q In that regard, is it your testimony that the Commission made an erroneous determination the first time around?

A Could be. They may not have known, for instance, if the chlorine contact chamber was sized for 2.5 million gallons per day. Obviously that's for ultimate capacity. It should not have been rated at 100 percent used and useful. If they did so --

Q Were you aware that the 24-inch reuse line was part of the 1997 case?

A That was ruled 100 percent used and useful?

Q Correct.

A I was not aware of it.

Q You have testified that it is your understanding that this II project, for lack of a better phrase, is ongoing at Aloha, correct?

A Yes. It's called an II reduction program by DEP, and it's mandated through the consent order. Yes.

Q How many do you understand of this particular system that we're discussing today Aloha has already attempted to make some determination regarding II?

A I only have what Mr. Porter said, and he stated that it's a small portion, that it's what he judged to be the worst portion because of the rutting in the roads and the subsidence of the pipe in certain older areas of the service area. But he also said it was a small portion.

We tried to get him at deposition to give a percentage, and he would not hazard a guess. So I can't give you a percentage and say it's a small part of the system.

Q Have you attempted to guess or estimate that portion of the system for the purposes of your testimony?

A Have not.

Q So you don't know if it's 5 percent, 10 percent, 50 percent?

A No. All I have done in my testimony is take what he has identified today, which is 140,000 gallons per day -- and since that's only a small portion, I said there's at least another 140,000 per day, I'm assuming. And I applied that 280,000 of IIs excessive and subtracted it from the average daily flow.

Now, if it turns out that that's not there after the program's over, then it should be adjusted to what the true numbers are.

Q You just believed that was a reasonable

extrapolation that they would find at least as much as they had already found?

A Yes.

Q And you would agree that the appropriate way for Aloha to make these determinations is with this nighttime flow isolation work that you talked about earlier?

A Absolutely. And you have to understand that one of the reasons that I think it's appropriate to include these II reductions is the fact that in the rate base and in the filings Aloha included the full cost of this program stretched out through the year 01.

So if you've got the cost of doing it in the rates, you certainly ought to have the effect of the II in the rates.

Q In terms of your assumptions and your decision to impute, if you will, a certain amount of II in the portion that you understand the work hasn't been done, would it change those assumptions if Aloha was, say, over 50 percent complete with that work?

A Not necessarily. I would have to look at what areas that they've done so far and what areas were left. You see, the developers typically install collection systems in, let's say, a less than perfect manner.

The quality control of their contractors are usually not good. Their makeup of joints many times is defective. As a result, you tend to have considerable II even in systems with PVC pipe. So I would have to look at the whole system to make that kind of a judgment.

Q Did you make any kind of assumption in terms of percentages as you wrote your testimony? Did you assume, say, that they were less than 25 percent finished?

A No, I did not.

Q It didn't matter to you what the percentage was?

A All I had was Mr. Porter's statement of a small part. And since he wouldn't hazard a guess with him supervising the work, or at least looking after the work, I had no way to hazard a guess as to how much it was.

Q Is it your opinion that any of the developers in this particular service area did substandard work over the last ten years?

A I'm telling you the general rule that I have seen in my career is that developer installed collection systems are not nearly as tight without II susceptibility as city systems, utility systems where an engineer is in charge and has somebody inspecting the work. So I found

that those systems are more subject to II than the other type of systems.

Q Don't DEP's rules that have been in place over the last ten years address that problem and prevent that problem?

A They should, yes.

Q But in your experience, they don't?

A That's right.

Q But do you have any personal knowledge regarding this particular service area?

A No, I do not.

Q About substandard work by developers?

A I was not there when it was put in.

Q Let's take a look at your testimony, Mr. Biddy. And we've already covered quite a bit of this.

A Okay.

MR. BURGESS: Can we go off the record for a second?

MR. WHARTON: Sure.

(Off the record.)

BY MR. WHARTON:

Q Sir, you say on Page 4 of your testimony, "Aloha has constructed many force mains and pumping stations which were not contributed by the developers."

A Yes. That's correct.

Q And the source of that information was the MFRs?

A Yes.

Q Can you quantify that by percentage?

A No. I can just tell you this: That the rate base increase was like six million dollars, six point something million dollars, $6.3 million exactly over the period. And the CIACs contributed lines only increased by 2.6 million, I believe.

So obviously there's a lot of plant and service that is not covered by contributions. We had a very difficult time in identifying those things, and that's one of the purposes of the interrogatories that you now have from us.

Q Sir, on Page 5 of your testimony, you make a statement "From today's engineering and economic standpoint, the infiltration allowance range of 350,000 to 1.4 million GPD flow is definitely unacceptable for the general rate payers."

A Yes.

Q What does that statement mean? Isn't an infiltration allowance range attempting to assess how much water is getting in the pipes?

A No.

Q What does it have to do with the rate payers?

A That's a very old technology, the 350 to a million four that Mr. Porter quoted in his report to DEP.

With today's modern pipe and compression joints, you shouldn't have anything close to that. And of course the more you have, the more it affects the rate payers obviously.

Q So you think that Mr. Porter's range was utilizing an antiquated standard?

A Absolutely.

Q What do the current manuals say is normal leakage for older systems?

A Well, as I've explained to you, the requirement by DEP is 200 gallons per inch, per mile, per day. This equates to something like that 56,000 gallons per day for Aloha's system and not 350,000 or a million four. It's a small percentage of that.

That's DEP's requirement. I've seen it met in that area with II reduction programs. The program the rate payers are paying for at this point is a reduction program and there's no reason that can't be met.

Q Isn't that the standard for newer systems though as opposed to systems such as older clay pipe?

A It's a newer and upgraded system. I've seen

upgraded clay pipe systems meet this standard.

Q And would it be your position that any older systems that have a leakage rate higher than that should be replaced with PVC?

A They should be repaired. If that entailed replacement, slip-joint lining, whatever. The 200 gallon per day, per inch, per mile is a standard that ought to be adhered to.

Q Is there a rule requiring a replacement in that case?

A Rule requiring replacement?

Q For pipes that have an infiltration rate that exceeds the 200.

A If it can't be repaired, yes.

Q What rule is that? Can you give us the citation?

A No, I can't.

Q Is it a DEP rule?

A It's a rule of practicality. If you can't repair it, you simply replace it.

Q But is there a rule or a statute or a regulation you know of requiring replacement in that circumstance?

A The DEP makes a judgment on excessive II. If they consider it excessive, they will make you give

the utility an order to do a reduction program and eliminate the II from their system.

Q And do you know of any rule or statute of DEP that determines that anything in excess of 200 gallons per day, per inch, per mile of sewer line is excessive?

A They have adopted Ten State Standards which I just read to you a few minutes ago that states that.

Q So it's your understanding that that is the case, it's essentially a rule from DEP?

A Yes. Certainly for new systems and systems that have been upgraded to a new status.

Q Are you aware of any instance in which DEP has made a determination that any portion of Aloha's system has excessive II?

A I don't know that the word "excessive" is in the consent order. But they certainly were ordered to undertake an II reduction program.

Q But you're not aware that there was any determination of excessive II?

A Well, if it hadn't been excessive, why would they insist that they reduce it?

Q You can't think of any reasons other than it being excessive?

A Yes. That's the primary reason.

Q Well, what other reasons can you think of?

A There would be less flow to the treatment plant.

Q Do you know whether there is an II component in the reports that Aloha has filed with DEP?

A I think they do periodically file those.

Q And are you aware of whether or not DEP has made any determination as to whether there is any II or not in those systems or excessive II or not?

A Well, I say obviously they have because of the requirement of the consent order that they eliminate the II from the system and spend a great deal of money to do that. It seems pretty obvious.

Q Well, what about, though, in the response to the capacity of analysis reports?

A I don't know.

Q You don't know one way or another?

A I don't know. I haven't read the response to them. Certainly there's no way for Aloha to know without undertaking some kind of an investigation such as this nighttime flow isolation program that they're going through now. So I don't know that they would know.

Q Sir, on Page 9 you say you believe the reuse system can have a 2.5 MGD capacity without additional upgrade.

A Yes.

Q Can you explain that statement further to me.

A Okay. Number one, the pumps that are installed or being installed as we speak, according to Mr. Porter, are 1,750 gallon per minute pumps. There are two of them with a spare, which is required.

The capacity of those pumps pumping full-time is 5 million gallons a day, pumping half-time, which is about what reuse pumps would pump, is two-and-half million gallons per day.

So your master pumping station for the reuse system at the treatment plant is certainly sized for the full two-and-a-half million gallons. The 24, 18 and 12 and force main will certainly carry that much flow.

They are in the process of, as they told us verbally, of obtaining other reuse areas besides the Mitchell Ranch area and this one golf course, even including residential irrigation which they have agreements with the developers for.

So the system is there to pump the 2.5 million gallons per day, the force mains are there to do it, but simply finding a place for it. So they have a system in place that will take care of their ultimate effluent disposal.

Q So do you believe this is really a 2.5 MGD plant?

A Do I believe this plant is a 2.5?

Q Yes.

A I believe that certain components of it, such as the headworks, the equalization tank, the chlorine contact chamber, the reuse pumping station, all of those items are sized for the full ultimate capacity.

Q Do you agree that reuse systems have to pump at peak demand projected by the customers and not by the plant average daily flow or peak flow?

A Sure.

Q Have you sized these systems previously?

A I haven't sized this one. I know it's sized for a maximum of about five million gallons per day. You take 1,750 and double it, it's 3,500 gallons per minute. You multiply that by 60 and 24, you'll get five million gallons per day.

Q Have you sized any similar systems previously?

A Have I sized similar systems?

Q Yes.

A Pumping stations, that's all it amounts to. You normally size pumping capacity for peak flow for two to two-and-a-half times average daily flow.

Q Have you sized similar reuse systems previously?

A No.

Q Sir, on Page 10 of your testimony, you say that "If this design information is confirmed, the used and useful percentage of the five-year margin reserve would be substantially lower than the 72.97."

A Yes.

Q What have you done or what do you intend to do to try to confirm that design information?

A Well, I have submitted to you or to Aloha through you a series of questions through interrogatories that will establish the fact of whether these components are in fact built to these capacities or not.

If they are -- and we're assuming that the PSC will receive it -- we intend to file amended testimony for the used and useful rates.

Q When do you understand you would file this amended testimony?

A Well, there's always a question at the hearing to the witness "Is this is your direct testimony that you filed and do you have any changes you would like to make?"

At that point in time, I would certainly speak up and say, yes, I have found subsequent

information to this extent and I would like to modify my testimony as follows.

Q And, again, as we sit here right now, the work that you understand you will undertake in order to gain anymore information about this case or about your testimony is that you want to see the responses to the discovery that has been sent to Aloha?

A That is correct. It already is stated in the permit that these four items, for instance, in the plant are designed to those capacities.

If they were in fact installed to those capacities, I would like to know that and I would like to know the cost of that. We would need to isolate the cost of those facilities as well.

Q So when you say on Page 12 that you propose to continue your investigation after this testimony is filed to try to verify the $9.576 million total, as we sit here right now that's what it is that you're talking about, getting those interrogatory responses?

A Yes. But that's another subject as to whether or not they spent the 9.6 million or not.

Q I know. But I want to know everything else that you intend to do.

A Yeah. I've asked that in the interrogatories.

Q Are you aware of anywhere on the face of the permit where it indicates that any of these facilities are designed for more than 1.6 MGD?

A Yes, I am. Would you like to see them?

Q Please.

A Do you have a copy of it?

Q Yes.

A Go to Page 4, the second paragraph.

MR. PORTER: Page 4 is a table.

THE WITNESS: Right here.

MR. PORTER: That's the permit application.

THE WITNESS: Yeah, it's the permit application.

BY MR. WHARTON:

Q I'm asking about the permit.

A Well, I'm assuming it matches this application. But this is the reason I've asked the utility to respond to interrogatories to confirm that those things were in fact installed that way.

Q Well, you say you're assuming. But are you aware as we sit here right now that the permit indicates that any of these components were sized to exceed 1.6 MGD?

A No, I'm not aware of it.

Q And you are aware that the permit

specifically provides this is a 1.6 MGD facility?

A Absolutely.

Q Sir, let's go through your exhibits.

A All right.

MR. BURGESS: John, can we take a break?

MR. WHARTON: Sure.

(Recess.)

BY MR. WHARTON:

Q Mr. Biddy, let's take a look at TLB-1. Who prepared this document?

A I prepared it.

Q Did anyone assist you?

A No.

Q What was the source of the information?

A Two sources. Number one, was all of these sections that you see listed on the left-hand side, I bought the latest aerial photographs from the Pasco County Tax Appraiser's Office that shows all of the properties.

Number two, I had them explain to me their on-line database that I could access on my computer through the Internet to determine what properties were vacant at this time.

And based on that, I was able to come up with the total connections and total potential

connections. Although, my total potential connections I used only a density of three units per acre for all of the vacant land that was in an area where a sewer line was at.

Q What were the latest aerial photos?

A I showed them to you a minute ago. I have them.

Q What was the date though?

A It was '98 or '99, one.

Q That's okay, Mr. Biddy, if you think it was '98 or '99.

A Yeah.

Q Did you make an allowance for commercial property --

A Yes.

Q -- or did you assume that it would be residential?

A Yes, I did.

Q Tell me what allowances you made.

A Well, as I just explained, I used a density of three units per acre or three connections per acre for all properties. Some that's way low on, so I gave them a lot of the benefit of the doubt as far as numbers of connections.

Q Did you make allowances for features such as

roadways, wetlands?

A Yes, I did, on wetlands. The roadways that are there now, I certainly didn't count those.

Q What about wetlands?

A I did not count the wetlands. See, they are all classified by the county. If an area is half swamp, half of it will be shown as maybe single family, and the other half is classified as either swamp sewage disposal or wastelands or something.

Q When you say you didn't count it, you mean you literally didn't count it or you think your three units per acre takes into account that?

A No, I did not count it. I did not count it. I did not multiply it by the three units per acre.

Q Let's take a look at TLB-2. Who prepared this document?

A Me. I prepared it. George Sue had a hand in preparing it as well.

Q Why did you utilize the assistance of Mr. Sue?

A Well, I had Mr. Sue's assistance on the entire project. This particular one I think he drafted it and gave it to me and I finished it up.

Q Whose used and useful methodology is this? What's the source?

A This is OPC's used and useful technology.

Q Does it differ to your knowledge from used and useful methodologies utilized by the Commission in previous cases?

A I'm not sure. It's fairly straightforward. ERC to ERC is -- the annual daily flow in this instance is just a straight proportion projected on out for each year.

Q Let's take a look at TLB-3. What's the purpose of TLB-3?

A This is the actual calculation of the used and usefulness of each item.

Q And who did this?

A That was my computation.

Q Did Mr. Sue do part of it?

A I don't remember if he did or not. He might have done some of it.

Q What was the source of the information?

A What was the source of the information?

Q Yes.

A We'll have to go through it one at a time. We had to compute the annual average daily flow for --

Q Well, let's do that. And I don't mean to interrupt you. But perhaps that's a better way to do that.

Let's go with 1999. Where did the Line 1, 1.2 million -- what was the source of that?

A Well, that's permitted capacity, the DEP permitted capacity of the plant before the upgrade, 1.2 gallons per day.

Q And Line 2?

A The effluent disposal capacity. And it was the same thing. But it was not all reuse prior to this current permit.

Q And Line 3?

A Line 3 is the historical annual average daily flow through September of 1999.

Q What about Line 3, the year 2001, where did that number come from?

A That is a computation based on the -- if you'll notice the footnote, per MFR Schedule F2 and projected from Schedule F10.

It assumes two times of 140,000 gallons per day of II for number four. But number three was just projecting using Mr. Porter's equation of growth.

Q Well, what minus what came up with Line 3 under 2001?

A What minus what?

Q Yeah. What calculation did you perform to come up with 990,789 on Line 3 under 2001?

A Subtracting 280,000 gallons per day from a million two, I guess. First of all, you've got to project forward the flows to 2001 based on what Mr. Porter did. And then you have to subtract from that the 280,000 gallons per day.

Q Are you unable to supply those precise figures to me right now?

A I don't have them with me, but I can certainly get them to you.

Q So you don't have your work papers in that regard?

A I don't have them with me. But that will give you 990,789 gallons if you take his equation that he has in his report for growth for ERCs and take my methodology and taking that as a proportion times the annual average daily flow less the excess II, it comes out to that number.

Q And the next time that I take your deposition, you'll have those other documents with you and you'll be able to go through that calculation?

A Sure. Simple arithmetic, sure.

Q Okay. Why is Line 4, 2001, the same as Line 3, 2001?

A Because we had already taken the excess II out on Line 3 from 2001, 2002 and 2006. Of course, the

purpose was to get at the ADF at 2006, which is the fifth year of the margin reserve.

Q Why are you continuing to subtract the excess I&I flows after the I&I program is scheduled to be complete?

A Because the projection forward of the flows based on the formula that's in Mr. Porter's study is -- you know, we're projecting forward the flows that were historic that had the II in it, so, therefore, you take the II out.

1,197,000 gallons per day is a historic number. That's what they measured that with. The $917,000 below it has the 280 subtracted from it.

Therefore, if II is in that million 197 and I'm simply apportioning that out for the 2001, 2002 and 2006, then I need to subtract the II from it.

Q Where in your calculations is the allowable 56,000 GPD?

A It's not. It's still in the system even after the --

Q Of II I should say.

A It's in the system. It's an allowable by definition. It's in the system. It's being treated.

Q But didn't you believe 280 was the total amount of II?

A The total amount of excess II.

Q So you actually believe then there was 336,000 gallons of II?

A Yes.

Q Around 280,000 gallons of that is excess II?

A That's correct.

Q So as I understand it, in the documents that were not produced today, you have a document that reveals your calculations for this particular exhibit?

A Sure. And it is so simple I can explain it to you if you want me to.

Q But you have a document that's got the calculations?

A Sure. It's probably on a piece of yellow paper. It's simply Mr. Porter's equation times the ratio -- well, times the average daily flow without the II that we started with in our historic test year.

MR. WHARTON: And does that sound to you like something, Steve, that is subject to some kind of a privilege?

MR. BURGESS: No. The only thing that I was going to wait to see if I needed to on redirect, but just as a point of clarification here -- the impression I'm getting from what Ted is saying is it may even be here.

BY MR. WHARTON:

Q Do you think it might be here?

A What, the --

Q That particular calculation.

A Well, I didn't see it as we went through everything a while ago.

Q Okay.

MR. WHARTON: Steve, do you have a problem with providing us with that particular document?

MR. BURGESS: Not at all.

MR. WHARTON: And, in fact, if you give us access to the rest of Mr. Biddy's documents, then we can really make a decision on whether or not we need a deposition on those documents.

MR. BURGESS: Yeah. Actually, as you say that, that is also one of the things I was thinking was perhaps rather than doing a subsequent deposition duces tecum that he provide the documents --

MR. WHARTON: Let me put it this way: We would either be able to tell you that we didn't need Mr. Biddy again or we would be able to tell you this is a half hour's worth of questions, something like that.

MR. BURGESS: So what we'll do is we'll get

together and we'll get you the documents that I don't consider privileged. I'll list those that I do consider privileged that you haven't seen.

MR. WHARTON: Okay. I appreciate that.

MR. BURGESS: And then you can make a decision from there as to what you want to do.

MR. WHARTON: All right.

BY MR. WHARTON:

Q Mr. Biddy, in your opinion, is the land utilized in this project 100 percent used and useful?

A Yes.

Q Let's take a look at TLB-4, which is actually several pages, correct?

A Yes.

Q What was the purpose of this composite exhibit?

A Well, it's a copy of the schedule -- I believe it's A6 instead of A4 that was filed with the minimum filing requirements. But I could not read those because the Xerox copy was so blurred and so fine.

The three columns you see of the balances at 9/30, 2000, 9/30, 2001 and 13-month average on the first page, those are direct copies of the numbers in the filing by Aloha.

Q So the only thing that this composite

exhibit is is a regurgitation of part of the MFRs plus you put some comments?

A Well, the comments specifically is the reason I did it, so that I could add up how much different items were being added to the plant and service for each of the three years in question.

If you'll notice on the first one, on number A, which is the projected test year, they were going to add a million 657,815 dollars of new plant in that year. That was the one to come.

The next page under 4B -- that's this year that we're in now -- they propose to add $5,602,489 this year. And then the first one, 4C, supposedly there was $2,316,543 added in the year ending in '99, 9/30/99 as a historic fact.

Q And that totaled up to the total project cost?

A Total project cost is listed on the first sheet as $9,576,847. The purpose of my preparing this was to try to verify that all of these things had in fact been installed in the system.

Q And did the preparation of this sheet help you achieve that verification?

A No. It isolated and let me know what items it applied to as categorized by Mr. Nixon in terms of

structures and improvements and so on.

But I have not verified to date but about four million dollars worth of -- specifically four million dollars worth of improvements. I know there's others, but I just haven't verified it.

And that's part of the questions that we've asked through interrogatories is for the verification of the balance.

Q Is there some way for me to tell from this exhibit what you have verified and what you have not verified?

A Yeah. You can look on the year we're in now for the construction in progress. Of that $5,602,000, I have verified approximately $4 million, which is mostly the pumping equipment and the structures and improvements and the power generation equipment, the reuse distribution reservoirs, the treatment and disposal facilities, enough of supposed specific item numbers to total up about $4 million.

And that's the construction that's underway now that I have gone to the plant and looked at.

Q And everything else is not verified?

A Well, I've asked the utility to tell me what it was. Right off the top of their head, they couldn't give it to me, at least on-site. I've looked for it

elsewhere.

I know that there was, for instance, a reuse line put in it last year. What was the cost of it and how much that totaled up, I don't know. But it's purported to be $2.3 million.

Q But I think you testified earlier that that $4 million is the extent to what you had verified as you sit here today?

A That's correct.

Q Were you aware, sir, that this was a projected test year and that some of these items are still in the design stage?

A Estimates, yes.

Q So you wouldn't expect to be able to go out and verify all 9.5 million?

A I would expect this projected test year to be able to look at some estimates by engineers or others for these improvements that are going to be made.

Q And you hope that your investigation in that regard will be complete when you get the responses to the interrogatories served on Aloha?

A I think I will.

Q Let's go through that discovery, Mr. Biddy.

A Okay.

MR. WHARTON: Let's go off the record.

(Off the record.)

BY MR. WHARTON:

Q Mr. Biddy, you had indicated that you were the principal author of these interrogatories. Is that a fair statement?

A That's correct.

Q So you gave them to your lawyer, and he may have made some changes to them, but he sent out essentially what you gave him?

A That's correct.

Q All right. Interrogatory Number 11 says, "What percentage of Aloha's total collection system has been evaluated for II reduction as of this date?"

What are you looking for in that response and why did you ask it? And I understand we've discussed this at some length.

A I want an idea at this point of how much has been looked at and how much -- as the following questions will ask -- how much II you determined to be there.

I have gone under the assumption that there's a total of 280,000 gallons per day that can be eliminated. And I want a verification of that.

Q And when you say percentage of the total collection system, you mean in terms of --

A Feet.

Q Okay. What do you intend to do with that information? If they come back and say 30 percent, what will you do with that?

A All right. If 30 percent has been done, it will give me an idea that there is 70 percent remaining. We found 140,000 gallons per day already.

Certainly my assumption is still working pretty good if I got 70 percent left. Although, I don't know the condition of the remaining 70 percent.

But the other questions should get all -- once we get any reports that he has filed --

Q Question 12 says, "Define the collection areas by street names and locations that have been evaluated to date for the II reduction program."

A Yes.

Q What will you do that with that information?

A I've talked to Mr. Porter about it, and he has told me it's in the older section where they had the subsidence of the roads and whatnot.

I would like to see where those are at. I would like to see if that includes all of those type areas or if there are other areas that may be subject to this heavy II.

Ideally, he can get somewhere down the line close to finished with this by the time we go to this

hearing and he can report the actual number and let's use the actual number.

Q So what you would expect to see in response to that interrogatory is we went down and looked in the manhole on so and so street at four a.m. and that covered this part of the system?

A Well, he's had certain streets that they have done all of the sewer on that street. They televised them. They cleaned them. They prepared them. They eliminated 140,000 gallons of II already in the system.

Q What's the purpose of Interrogatory Number 13's inquiry about the equalization system and tank?

A Well, the design computation submitted with the permit shows that that was sized for a two-and-a-half million gallon build-out.

And I want to know if that was installed and sized and confirmation that that indeed was sized and installed for that amount.

Q And if the answer is yes, what do you intend to do with that information?

A Determine the cost of that equalization tank by itself or the equalization facility by itself and apply a different used and useful percentage than the 72 percent. In other words, if it's going to be less than

50 percent, it's going to be something like 48 percent.

Q Why would it be a different percentage?

A Because of the size. You compare the size you would need to have for the present -- the five-year build-out capacity to what's existing.

Q What size do you believe Aloha should have appropriately installed for it to be 100 percent used and useful?

A 180,000 gallon tank is what he shows in his computations for 1.6 MGD should he have that size equalization tank. And then he goes -- no. He goes through a little adjustment factor and makes it 222,000 gallons.

Then he says at build-out, ultimate build-out, he increases it to use -- he says 4 to 500,000 gallons. And actually what was installed was a 500,000 gallon facility.

Q Do you understand that what you were reading from in that regard was a final document or was it a preliminary document?

A It was a submittal with the engineering calculations submitted with the application for permit. It's in the DEP file. All of this came from the DEP file.

Q Was there a preliminary engineering report

there?

A Yes. That's what you submit with your design, your application.

Q What is a preliminary engineering report?

A A preliminary engineering report is a report prepared preliminary to construction. It doesn't mean just some sketchy thing. It's not final. It's preliminary to the construction.

Q Would you agree that often representations and preliminary engineering reports change substantially before final design?

A Sure. And that's one of the reasons I've asked for these verifications.

Q And often that would be because of DEP comments?

A Sure.

Q Let's look at Number 14, "What is the capacity for which the headworks are being sized?" Why do you want to know this information and what do you intend to do with it?

A Well, from what I can see in Mr. Porter's same report, preliminary report, he said that to get to the ultimate 2.4 million MGD you would only have to add some additional reactors, filters, pertinent equipment, no new headwork.

I'm assuming, therefore, that the headworks that are there will be sufficient for the following 2.4 million gallons a day build-out. If that's true, I want to know that.

Q Mr. Biddy, are you aware or have you attempted to quantify the difference between what Aloha initially conceptually proposed to DEP and what DEP ultimately required?

A No, I'm not. I don't know that.

Q Number 15 refers to an engineering report and a seven cell filter and asked was this filter constructed to handle the ultimate plant capacity.

What's the purpose of this question and what do you intend to do with the information?

A Well, the report says that it was rated at 2,343 gallons and it was equivalent to 8.4 million gallons per day fully utilized. That sounds like ultimate capacity. It can handle 2.4 million gallons.

Q To your knowledge, is that maximal allowable loading rate?

A Yes, I think it is. But it's also four times the build-out capacity.

Q And what do you intend to do with the response to the original costs of the filter?

A Just a proper used and useful percentage

based on that capacity.

Q It appears to you that that seven cell filter is only 25 percent used and useful based on what you know?

A No. I think it's more than 25 percent. Average daily flow right now to me is two, about, out of 2.4, close to 50 percent.

Q Okay. Are you aware whether or not this particular filter was determined to be 100 percent used and useful in the last rate case?

A No, I'm not aware.

Q If you found out that was the case, would it cause you to alter or revise your opinion?

A Not in the slightest.

Q Would you just think the Commission made a mistake?

A Yes, or staff.

Q Number 17 says, "The chlorine contact chamber is described in the engineering report" and says, "What is the capacity and retention time for the chlorine contact chamber?"

Why are you requesting that information and what do you want to do with the response?

A The same reason, that the report by Mr. Porter states that the east bay of this chlorine

contact chamber has 47,752 gallon capacity.

This would give you 2.3 million gallons per day for a 30 minute contact and retention. And normally you don't need but 15 minutes, so it may be double that even at capacity.

So it's the same thing. It's built for ultimate capacity. I intend to determine that, compute a used and useful percentage for it. And if we can isolate the single cost for that thing --

Q Do you know whether or not the chlorine contact chamber was determined to be 100 percent used and useful by the Commission prior to the --

A I don't care. They can always undo that.

Q That's your theory is that the Commission can later change their mind?

A I assume so, if they made a mistake.

Q You appear to be reading from something in some of these responses.

A Yes.

Q Do you have some notes there?

A This is what you looked at earlier and made a copy of. It's just the FDEP file, permit file, which includes Mr. Porter's report and then the permit.

Q Number 19 says, "Why does the engineering report state that additional filters will be required

during the final capacity increase since the filters are already sized for the ultimate plant capacity?"

What's the purpose of that question and what will you do with the response?

A Well, I simply want to know why the report states that they will need additional filters since the filters here are already sized for the ultimate capacity.

Q It appears to you that no additional filters should be needed?

A It appears that way from the sizes that are reported here at the report.

Q Why are you interested in the MGD capacity of the reuse pumping station?

A Same reason. I know that Mr. Porter has stated to me verbally -- and I guess I saw it on his plans. But he has two 1,750 gallon per minute pumps plus one spare at the pumping station.

That's 3,500 gallons per minute of capacity. That's equivalent to five million gallons a day pumping all the time or equivalent to two and a half pumping half-time, which is about what he would pump in a reuse situation. So, therefore, it's probably sized for ultimate capacity.

Q As we sit here today, is it your opinion that any part of the reuse pumping station is not used

and useful?

A As we sit here today, yes.

Q Can you quantify that?

A Yes. It would be approximately 50 percent.

Q Why do you need this information if you already are of that opinion?

A Well, I don't have it in any document form. I have asked Mr. Porter about it, and I've also looked at the plans.

So I just wanted it in a documented form. And I want the cost of it. You'll see the next item is what was the cost of it, that specific pumping station.

Q Based on your experience, do reuse flows have any relation to plant flow rates?

A It depends on how much storage you have. It could or could not.

Q So maybe yes, maybe no, it just depends?

A Yes.

Q I'm going to start going a little easier on the court reporter here and just referring to these numbers. What's the purpose of Interrogatory Number 22 and what do you intend to do with the information?

A Well, the same thing. There's a 24 and an 18 and a 12-inch reuse force main. I would like to know the capacities of those and what they were designed for,

how much each line will ultimately carry, if that has been designed for ultimate capacity.

Then certainly the prudence of that should be deducted if they're used and useful. I believe that the law properly addresses prudence to mean the same thing essentially.

Q And you don't really give a care whether or not those particular lines were considered used and useful in the last eight days?

A No. It doesn't matter at this juncture. It will matter how much they're carrying and what we can determine is the capacity of those lines.

Q Is taking a crack at used and useful percentages in subsequent proceedings that have been determined in prior proceedings another one of those OPC policies we've heard about?

A Well, we're looking at the whole system. I wasn't asked to exclude any part of it from my analysis. I see a part of it that's obviously sized for an ultimate capacity. I will certainly point that out.

Q Is it your position that those lines are not a requirement for reuse?

A No, it's not my position. It's my position that at this time probably smaller lines would have been adequate for a five-year margin reserve period of time.

And the fact that they've got 24-inch and 18-inch lines means they probably sized it for ultimate capacity, which I think it's a horizon of 20 years.

Q How do you build lines for five-year horizons as opposed to 20-year horizons?

A You simply install smaller lines.

Q And are you then going to have to come in, say, six or eight or ten years down the road and tear up those lines and put in bigger lines?

A No. I just put in another line.

Q You're just going to lay those lines in there on top of each other?

A Add additional lines.

Q Are you aware of any reuse facility that has designed the central mains for step growth?

A I'm not aware of any either way. No, I haven't evaluated them.

Q What was the purpose of Interrogatory Number 23 and what do you intend to do with the information, the same question you just answered?

A Yeah.

Q You would introduce those figures by used and useful investment?

A Yeah. I want to furnish that cost to the accountant so that he can properly apply the used and

useful or the prudency percentage, let's call it, to that item.

Q To your mind, prudency percentage would have the same meaning as used and useful percentage?

A I believe it does in this case. I really do.

Q What's the purpose of Interrogatory Number 24 and to what use would you put the response?

A This is a part of the exhibit that we went over, the TLB-3. If you'll look at it.

Q All right.

A I'm trying to understand and verify what each one of the items refers to, what was put in that that caused this increase.

For instance, this was collection sewers force mains. They have gone from 1,534,000 of plant and service at 9/30/00 to $2.7 million and change at 9/30/01. So that's an increase of $1,229,000 in the projected test year.

I assume that they have estimates from engineering firms that shows that amount. I would like to see that and know when it's going to be installed.

Q And you didn't feel like you were able to ascertain that information from the MFRs?

A No, I was not. There's no details. It just

says, "Collection sewers-force mains."

What was it? Where was it put? Was it contributed? We don't know.

Q Was Interrogatory 25 intending to refer to Interrogatory Number 24?

A Yes, it was.

MR. BURGESS: That was one of the changes I made.

BY MR. WHARTON:

Q Interrogatory Number 26?

A Same thing.

Q And 27 and 28 would be the same thing?

A Yes.

Q And you did not feel like you were able to get that information from any other source?

A No, I was not.

Q You couldn't get it out of the MFRs?

A It was not detailed enough, no. It was stated in general terms.

Q Did you look at Section G of the MFRs?

A Yes.

Q But you just didn't feel like that was detailed enough to give you these responses?

A Partially, but not totally, no.

Q So you wouldn't be happy with a response

that says go read Section G?

A No, we would not.

Q What was the purpose of Interrogatory Number 29 and to what you do you intend to put the information?

A I'm assuming that the letter of Civil Engineering Associates, Inc. of 1/21 of this year is the estimates for the projected test year of the force main and pumping station I've heard so much about.

I would like to know if that is the part that was included in the schedule for the projected test year of one million 229 for force mains and another 96,000 for pumping facilities and another 131,000 for structures and improvements. I need to know that.

Q What would you do with the information?

A This is again telling us how much plant and service of collection lines or force mains that the utility has.

It has been alluded to a couple of times in our investigation that all the lines were contributing. This is apparently not the case.

And if there is a used and useful percentage to those lines, then it should be adjusted by the used and useful percentage.

Q And, Mr. Biddy, is that what you're attempting to do with Interrogatories 30 through 42?

A It actually goes through 43, 44, 45, 46, 47, 48, 49, 50. It goes through 50. All of those are specific questions concerning these line items and these three schedules.

Q And all of those you felt like you were unable to ascertain the information looking at the MFRs?

A Yes. That's correct.

Q And you're attempting to get those amounts so you can make adjustments, if you believe that's appropriate?

A If there is an adjustment necessary to it. And it appears that there are.

Q Was your stopping at 50 a coincidence or did your lawyer tell you you couldn't send anymore than that?

A That was the limit, I believe, of the total number of interrogatories we could ask. I did have more questions than that, perhaps ten more. I forgot. But we had to comb some of that out.

Q Why does Number 43 say whether these lines were contributed, which is how that entire set of interrogatory ends? But then it says, "And provide a schedule or breakdown if necessary for clarity."

A All right. I want to know -- you're looking at specifically 43?

Q I am, Interrogatory 43.

A I want to know if they were a contributor or not, this particular collection system. In the Schedule A6C, Line 10, it shows an increase during this '98 to '99. So that's a historic accomplished fact.

It shows $349,704 of added plant and service consisting of gravity collection sewers. I want to know was that contributed by a developer, was that part of the rate base.

If it's contributed by a developer 100 percent, then obviously it should be in the CIACs and not a part of the rate base. So I need to know that.

Q When you ask a question like explain what reuse meters and meter installations were added for this 146,000 -- I'm looking at Number 40.

A Okay.

Q What kind of detail do you really need in order to make your calculations?

A We've been told that the reuse meters have been installed on a number of locations, apparently, where Aloha has contracted to furnish reuse water at, I believe, a quarter a gallon -- a quarter per thousand gallons.

These reuse meters, are they paid for by the developer or by the homes? Is it contributed? We need to know if it's part of the utility's investment that's

subject to a used and useful correction or not.

Q Mr. Biddy, let's go to the request for production, and let me ask you specifically about Number 5. Did you draft these requests to produce?

A Let me see if I did or not.

Q Number 5 is the one I'm really looking at.

A Yes.

Q Was there a previous request to produce to Aloha pursuant to which they did produce documents?

A By OPC, no.

Q What about the documents that were produced at Mr. Porter's deposition? Did you attend that deposition?

A Yes, I did.

Q Did you have a chance to look through those documents?

A I briefly looked through some documents after the deposition, specifically some plans and some manuals, some project manuals. I don't have the design capacity specifically noted for all of these items.

Q You didn't ask that any of those documents be copied?

A I guess I could have. I did not. Mr. Porter knows though. He pulled them right out of his files. It's certainly no big problem to furnish that.

Q Do you know whether or not those documents were responsive to this request to produce?

A I don't know that all of them were. Probably some of them were, yes.

MR. WHARTON: That's all we have.

EXAMINATION

BY MR. FUDGE:

Q Mr. Biddy, were collections systems installed by the original developer normally contributed to the utility?

A Yes.

Q Once a utility assumes ownership of these contributing lines, does the utility become responsible for the maintenance and upkeep of those lines?

A Yes, they do.

Q Are contributed lines considered 100 percent used and useful?

A As a rule, yes.

Q What if those contributed lines serve a neighborhood which is not built out yet?

A If the contributed lines serve a neighborhood not -- if they were contributed?

Q Yes.

A I would say they are still 100 percent used and useful.

Q Are the gravity and force mains connecting these neighborhoods to the wastewater treatment plant normally installed by, owned and maintained by the utility?

A By the utility itself, yes.

Q Are these trunk lines normally considered 100 percent used and useful?

A I do not consider them, no.

Q But does the Commission normally consider them 100 percent used and useful?

A I have no earthly idea.

Q Are you aware of any cases where they haven't been considered 100 percent used and useful?

A In each case that I have been involved in, I have testified as to the used and usefulness of all of the force mains, pumping stations and trunk lines.

Q In your table TLB-1, you're comparing potential connections to existing connections less a margin reserve and arrived at 78.7 percent used and useful?

A Yes, sir.

Q Which you then applied to the entire $1.6 million cost of improvements to the wastewater connection system; is that correct?

A I didn't apply it. The accountant applied

it to the appropriate line items, I hope.

Q Okay. But you did not differentiate between collection systems and the trunk lines when you applied the --

A Well, it's all a collection system. It's whatever investment the utility has in the collection system, which is probably only -- or a great deal of it at least -- is only the force mains and gravity transmission lines that they have installed in major roadways.

Q But when you apply the used and useful adjustment, you didn't differentiate between the contributing property and the utility property?

A Well, if it's contributed, it would not have been listed, I don't suppose.

I'm not an accountant and I haven't looked at what he's done, but I assume that whatever was shown as CIACs and also plant and service, he's eliminated that from his thinking. And only those parts still in the rate base are subject to the used and useful adjustment.

Q In your testimony, you state that a reasonable I&I allowance is 56,000?

A That's correct.

Q Do you know what percentage of 35 miles of wastewater lines are new PVC lines?

A I don't. I know this whole service area is probably from zero to 20 years old and that some areas would evidence clay pipes in the older areas, and the brand-new areas would be the most modern PVC lines.

However, they were developer installed, most of them. And that raises a big red flag to me because I've seen so many developer installed collection systems. It's fairly shoddy work usually and subject to inflow and infiltration.

Q Throughout your testimony, you talked about I&I, but you only really discussed infiltration. What about inflow?

A I'm talking about both of them, I&I, inflow and infiltration.

Q So your calculation includes infiltration and inflow?

A Yes, total I&I.

Q In Aloha's MFRs, their tester ERCs are approximately 9,646. And if you multiply that by the 150 gallons per day allowable, you get 1.4 million gallons per day of anticipated flows?

A Yeah. The problem is that they don't have 150 gallons per day per connection. The historic value is 129.6, I think it is.

Granted, DEP said they would use that. But

that's not a true number. The historic number is 129.6 I think it was.

Q But if we were to use the one that DEP allowed and we took 10 percent of the 1.4 million, that would leave 144,000 of acceptable I&I?

A That's true. If you agree that 10 percent is acceptable. But you're basing that on a false calculation is what I'm saying. The average daily flow per ERC is not 150 gallons per day. It's more like 129.6 if you divide it out.

Q Okay. Earlier your questions about certain items that you made use and useful adjustments to and that they were part of the last rate proceeding and they were considered 100 percent used and useful -- do you remember when they were questioning you about that?

A Yes, I do.

Q What if those items were part of the phase three project that they haven't constructed and maybe have abandoned or reevaluated, would it be okay for the Commission to go back and look at an adjustment for those parts that were in phase three?

A Well, certainly. I think as a matter of equity they need to if there were portions that weren't completed.

Q Okay. Are you familiar with other utilities

that sell reuse?

A Yes.

Q What is a typical percentage of effluent that they are able to sell as reuse?

A I'm very familiar with the Destin Water Use Association. The company I worked for for the last eight years did that.

They actually hold a raffle in Destin. The winners get the reuse water or get to buy the reuse water at whatever small amount is paid for it. 100 percent is used for irrigation, all of their reuse water.

For the foreseeable future, all of their reuse water will be clamored for by the citizens.

Q What are the typical customers?

A Residences, apartment complexes, anybody that has open space that needs irrigation at a reasonable rate, a very reasonable rate.

Q Do you know how it was priced?

A In Destin I don't remember.

Q Do you know how it is priced in Pasco County?

A Yes. I think it's 25 cents per thousand gallons. That's what Aloha is offering for it.

Q But I mean by Pasco County Utilities.

A I don't know.

Q Okay. In the last rate case, the 25 cents that was approved for Aloha's reuse rate was to be market based and it was compared to Pasco County's rate.

If Pasco County's rate has went up, should the 25 cent rate be reevaluated?

A I would think so, yes.

Q Have you contacted the Southwest Florida Water Management District about this reuse system?

A I have not, no.

Q Okay. I guess we've covered this a lot about the used and useful and the difference between prudent and the statute.

A Well, I understand what the statute says. I believe that the word "prudent" was put in there for a purpose, and that's to qualify.

And I don't believe the legislature ever intended to give free reign to the utility to put in whatever they pleased in whatever size they wanted to at the expense of the rate payers. I can't believe that that would be the intent. I don't think that any court would hold that.

Q Are you familiar with the SSU vs. the Commission court case?

A Just from what you showed me earlier.

Q In that court case, they said that to comply

with the reuse statute, the entire cost of the prudently constructed reuse facility must be treated as if it were 100 percent used and useful.

A Absolutely. And I believe the operative word is "prudent cost." I believe that was intentional wording by the legislature to limit the amount of work that can be done or facilities that could be installed by the utility.

Q So the only determination to be made is if it's prudent?

A If it's prudent. And my statement that a 12-inch force main would have worked for the foreseeable future, at least the five-year horizon, and yet they install at 24, then it was not prudent, at least for the five-year horizon.

MR. CROUCH: Can we go off the record.

(Off the record.)

BY MR. FUDGE:

Q In the March 10th, 2000 letter from Mr. Deterding representing Aloha to staff, he states that "The new transmission line is four to five times as long as the one envisioned in phase three."

In your opinion, is the reuse system that they're proposing now prudent?

A No.

Q Did DEP require the reuse system to meet the capacity that Aloha proposes?

A I am of course trying to get verification now on what is the design capacity of those three lines. I suspect that they are far in excess of what's required.

Q Since you don't think it was a prudent upgrade, what would be a prudent upgrade to the reuse facility that would still meet the mandates of DEP?

A I think if you compute a five-year margin reserve in terms of flow and the reuse water that you would have to send and they had installed properly designed pipelines to carry that five years of growth, that would have been a prudent system.

Q Do you know what the reasonable difference in plant and operation costs would be between a prudent system that you would design and the system proposed by Aloha?

A I don't know. But it's obvious that larger pumps pull more power.

Q In the reuse case, phase three was designed to dispose of 1.2 million gallons a day of effluent. The Commission found that the utility could dispose of all of that effluent over four years.

In your opinion, will the utility be able to dispose of this 1.6 million gallons a day?

A It appears that they should be able to. I think once this residential reuse gets started, people will see that that's a very good source of cheap irrigation water, and I think that there will be plenty of customers for it.

Q How long do you think it would take for them to be able to dispose of that capacity?

A You know, I honestly don't know. The combination of the Mitchell Ranch property, the golf course and perhaps another government course and several others they had listed in some of the documents that I understand they have made agreements with, probably they've got most of it committed right now, the full 1.6.

Q And in your opinion, would the utility still need the Mitchell property to dispose of the effluent?

A Eventually probably not.

Q The last rate case for phase three, the Commission also ordered a rate reduction to correspond with the projected reuse revenue that the utility would receive. Do you remember that in the last order?

A Yeah. I've read some of the background material that said that, yes. But I wasn't involved in the case.

Q Do you think the same rate reductions should still apply?

A Certainly.

Q Have you performed any analysis as to whether the conditions that were in the last rate case are still present today as to the amount of customers that a utility would be able to sell reuse to?

A I get the impression -- and this is simply from verbal talking to Mr. Porter and to Aloha's president -- that they are beginning to have receptive people wanting to discuss reuse water.

I believe that they will be successful in marketing the reuse water to various and sundry facilities.

Q I believe that Mr. Larkin has stated in his testimony that the utility should use $109,000 of expected revenues that was found in the last case.

Do you have any projections that would use the 1.6 million gallons a day and multiply it by the applicable rate to get a higher revenue?

A I have not made any of those calculations, no. Although, it's obvious that that kind of revenue should be taken into consideration and properly adjusted to the rate base.

Q In the utility's response to Interrogatory 33-A4 about the phase three rate reduction, they propose to monitor any effects the reuse revenue would have on

rates through the annual report process. And if any overearnings were detected, then an overearnings investigation should be initiated.

Do you think that would be prudent or just go ahead and follow the phase three rate reductions?

A I would go ahead and do it. I wouldn't depend on some future annual report status of this item to dictate what needs to be done.

MR. BURGESS: No redirect.

REDIRECT EXAMINATION

BY MR. WHARTON:

Q Is it reasonable to expect a sewer utility to sell 100 percent of its sewer flows?

A I think it is after a period of time. Perhaps not this year, perhaps not the next, but soon. I've seen it work and work great over in Destin and even to the point where they have to hold a lottery.

Q Do you know anywhere other than Destin that it sells 100 percent of its flows?

A I haven't looked into it so I don't know. No, I don't to answer your question.

Q Isn't rain a pretty big factor in terms of the demand for reuse water?

A The demand for irrigation water in general, yes, and whether it rains sufficiently is a big factor,

yes.

MR. WHARTON: That's it.

(Proceedings adjourned at 3:30 p.m.)

CERTIFICATE OF ADMINISTERING OATH

STATE OF FLORIDA:

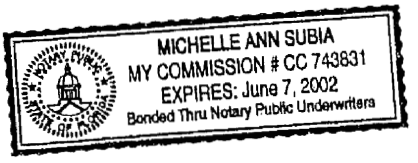
COUNTY OF LEON:

I, MICHELLE SUBIA, Registered Professional Reporter and Notary Public in and for the State of Florida at Large:

Do HEREBY CERTIFY that on the date and place indicated on the title page of this transcript, an oath was duly administered by me to the designated witness(s) before testimony was taken.

DATED THIS 23RD DAY OF AUGUST, 2000.

MICHELLE SUBIA
100 SALEM COURT
TALLAHASSEE, FL 32301
904-878-2221



CERTIFICATE OF REPORTER

STATE OF FLORIDA:

COUNTY OF LEON:

I, MICHELLE SUBIA, do hereby certify that the foregoing proceedings were taken before me at the time and place therein designated; that my shorthand notes were thereafter translated under my supervision; and the foregoing pages numbered 1 through 183 are a true and correct record of the aforesaid proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor relative or employee of such attorney or counsel, or financially interested in the foregoing action.

DATED THIS 23RD DAY OF AUGUST, 2000.

MICHELLE SUBIA, R.P.R.
100 SALEM COURT
TALLAHASSEE, FL 32301
(904) 878-2221
800-934-9090