

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

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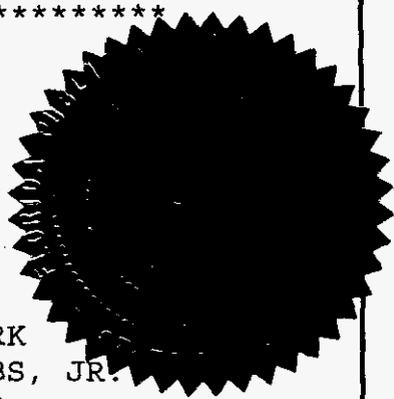
In the Matter of : DOCKET NO. 960545-WS
:
INVESTIGATION OF UTILITY :
RATES OF ALOHA UTILITIES, :
INC., IN PASCO COUNTY. :

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VOLUME 5

Pages 642 through 782

PROCEEDINGS: HEARING
BEFORE: COMMISSIONER SUSAN F. CLARK
COMMISSIONER E. LEON JACOBS, JR.
COMMISSIONER LILA A. JABER
DATE: Thursday, March 30, 2000
TIME: Commenced at 9:00 a.m.
Adjourned at 4:30 p.m.
PLACE: Clarion Hotel Ballroom
5316 U.S. Highway 19 North
New Port Richey, Florida
REPORTED BY: JANE FAUROT, RPR
FPSC Division of Records & Reporting
Chief, Bureau of Reporting
(APPEARANCES: As heretofore noted.)



DOCUMENT NUMBER-DATE
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NAME:

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NUMBER:

ID ADMTD

15

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CERTIFICATE OF REPORTER

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COMMISSIONER CLARK: Let's go back on the record.

We are looking for some time to continue the hearing. And at some point before we finish today, we are going to have to figure that out. Or failing that, we're going to have to renotice it. We don't want to renotice it, if we can possibly avoid it. But with that, let's reconvene the hearing, and go back to Exhibit 3.

Before we do that, I want to indicate that Mr. Forehand came up and gave me a note that said, "We understand that Aloha has an inordinately low impact fee for new home construction compared to Pasco County water. This passes extra costs onto current customers rather than new homes." I explained to Mr. Forehand that that was brought up in the hearing yesterday, and that is part of the record that was developed yesterday.

Mr. McLean, you moved Exhibit 3, is that correct?

MR. McLEAN: I did, Commissioner.

COMMISSIONER CLARK: All right.

MR. WHARTON: Commissioner, Aloha objects.

COMMISSIONER CLARK: And I will hear your objection.

MR. WHARTON: Commissioners, first of all, I

1 think a couple of things are noteworthy. One is that it
2 is apparently the Commission practice, based on
3 considerable precedent, that exhibits that were not
4 prefiled can be put in in cross-examination, and I have no
5 bone to pick with that.

6 However, if the document is not let in now, and
7 it is attempted to be put in through, for instance,
8 Mr. LeRoy, we may renew the objection on the basis that it
9 wasn't prefiled. But I'm not going to address that now.

10 COMMISSIONER CLARK: Okay.

11 MR. WHARTON: The other is that the
12 admissibility of a document cannot possibly be based on
13 whether or not we've asked questions about it. I can put
14 in front of an expert witness a document, a treatise, the
15 phone book, the Bible, and if I get an opinion from him,
16 then, that is the evidence. We can see if he is holding
17 up his fingers like this, if he's shaking. He can be
18 cross-examined. The fact is, there is opinion evidence
19 that there is no foundation to admit into this proceeding
20 in Exhibit 3. We don't know if it is really --

21 COMMISSIONER CLARK: You are going way too fast
22 for me.

23 MR. WHARTON: Okay.

24 COMMISSIONER CLARK: You are saying there is
25 opinion evidence in this document that it is inadmissible.

1 MR. WHARTON: Exhibit 3 is a mishmash of
2 articles, memos, E-mails, what is apparently a synopsis of
3 test results. I'm not Professor Ehrhardt. And probably
4 if I would have had a chance to take a class of his, I
5 would have slept through half of it. But there is only
6 two ways, to my knowledge, opinion evidence can come into
7 a trial. Either an expert who is qualified as an expert
8 gives it as his opinion; or an expert can come in and say
9 professor so-and-so in Colorado says X, and I agree with
10 that. And that is an exception that says that that is the
11 kind of information experts normally rely on in the
12 conduct of their affairs; and it is, therefore,
13 admissible.

14 In this case, the opinion evidence in Exhibit 3,
15 we don't have either one of those, clearly. If we would
16 have known -- for instance, if this document would have
17 been prefiled with Mr. LeRoy we would have taken at least
18 two depositions. We don't know about these tests results.
19 We don't know if DEP still believes some of these
20 sentences in there, such as the packed tower aeration
21 won't work. We don't really know who made those
22 conclusions. To the extent that document comes in for the
23 truth of the matters asserted therein, it is not
24 admissible.

25 Now, if you hold up a document that is not

1 admissible, and you say to the witness, well, this
2 document says X. If the witness says, well, I agree with
3 that, then that is the evidence. If he says, well, I
4 don't agree with that, then that is the evidence. You can
5 say the witness didn't agree with that.

6 But what you can't do is then in the final order
7 say, well, the witness didn't agree with that, but Exhibit
8 3 said X, so we're making a finding of fact based on X.
9 That's not evidence. We haven't had a chance to
10 cross-examine that. You can use it to get evidence from
11 the witness, and that is the way it has been used, and
12 that's why I withdrew my objection to Mr. McLean. But to
13 put it in for the truth of the matters asserted clearly
14 denies us any opportunity to cross-examine. It also lets
15 in opinion evidence by persons who have not been qualified
16 as an expert. It is the only way opinion evidence can
17 come in.

18 COMMISSIONER CLARK: Mr. McLean.

19 MR. MCLEAN: Yes, ma'am. If I may respond to
20 that, I will give you a different view. It is relevant,
21 it is competent, it is self-authenticating. There is no
22 reason to keep it out.

23 Mr. Deterding crossed for quite a little -- or
24 actually redirected for quite a little while on it, which
25 goes to two issues in my mind. The first of which is the

1 record isn't going to make any sense without it in there.
2 We talked about it for the better part of twenty minutes.

3 Remember that Mr. Deterding's questions never
4 went to its admissibility. Mr. Deterding's questions went
5 directly to its weight. There was considerable discussion
6 --

7 COMMISSIONER CLARK: Hang on. What does it
8 matter if his questions didn't go to the admissibility?

9 MR. McLEAN: If it were me, I would have set up
10 a voir dire and asked a bunch of questions about whether
11 it was admissible, and certainly not its weight.

12 COMMISSIONER CLARK: I understand that you might
13 have done it differently. How does that relate to making
14 it admissible, that he didn't ask questions on that?

15 MR. McLEAN: It is called opening the door. The
16 record now --

17 COMMISSIONER CLARK: No. Mr. McLean, let me ask
18 you, just because he didn't ask questions regarding the
19 admissibility, why does he waive the right to object to
20 the document?

21 MR. McLEAN: Because he asked about the
22 substance of the document. And because when there is no
23 voir dire, as there should have been, the record doesn't
24 make any sense. We went on for pages about -- pages of
25 transcript about what goes on in that document.

1 Without that document being part of the record,
2 you render a substantial part of the record nonsensical.
3 It doesn't make any sense at all to read it. It's an
4 opening of the door. He accused me of opening the door,
5 which I think I did. But he certainly ran through it as
6 quick as I did and stayed longer.

7 COMMISSIONER CLARK: Who initially identified
8 this exhibit?

9 MR. McLEAN: I did. Oh, you mean what witness?

10 COMMISSIONER CLARK: Uh-huh.

11 MR. McLEAN: It was one of the 35 customers
12 whose homes was surveyed. I don't remember which one it
13 was.

14 COMMISSIONER CLARK: Okay.

15 MR. McLEAN: I apologize, but it was a customer
16 witness.

17 COMMISSIONER CLARK: Okay.

18 MR. McLEAN: And I asked the -- and I asked two
19 customers who were involved in the survey cursory sort of
20 questions about their level of involvement and that they
21 authored the comments which are contained therein.

22 So, to continue that point, Mr. Deterding asked
23 a lot of questions about your record won't make any sense
24 if you don't let the document in because no one will know
25 what we were talking about. It will be conspicuous

1 absence.

2 And Mr. Deterding's questions went directly to
3 the weight of the document. Once we get into the weight
4 of the document, I think it's fair to assume that it
5 should be part of the record. Who can look at this record
6 and determine whether Mr. -- whether the document has
7 weight or not? If you should ever be called -- if the
8 record is ever reviewed by any other authority, how would
9 they know whether this document was accorded the
10 appropriate weight by the Commission when the document
11 isn't even in the record?

12 COMMISSIONER CLARK: It can't be accorded any
13 weight if it is not in the record.

14 MR. McLEAN: That's exactly correct.

15 COMMISSIONER CLARK: And Mr. Wharton has
16 indicated it shouldn't be accorded any weight because it
17 is opinion evidence, and it is not appropriate opinion
18 evidence because it wasn't accepted by an expert, or the
19 person who authored it is not here to be cross-examined.

20 MR. McLEAN: Yes. And there are two ways you
21 can get that in, and there's two -- Mr. Wharton mentioned
22 two ways you can get that in and there's a third way you
23 can get in, too, and that's by waiver. To the extent you
24 begin to cross on the expert's opinions, which
25 Mr. Deterding most assuredly did, you are waiving that

1 kind of objection. The thing to do is back off --

2 COMMISSIONER CLARK: Do you have any case law on
3 that?

4 MR. McLEAN: No, ma'am. I don't have my
5 Wigmore, either.

6 COMMISSIONER CLARK: The fact that he crossed --
7 did redirect on it was to establish whether or not his
8 witness agreed with it. His witness did not agree with
9 it; therefore, it seems it falls within the basis of the
10 objection.

11 MR. McLEAN: I think it goes precisely to the
12 weight to be accorded to the evidence, not whether it is
13 admissible.

14 Mr. Porter was asked a lot of questions about
15 whether he agreed with its conclusions. That is the kind
16 of questions that you ask about a document that is part of
17 the record. And, again, I return to the more practical
18 aspect of it: How is that record going to make any sense?
19 When somebody reviews that record, without that document
20 in the record, given the amount of talk about it that
21 there was, how is the record going to make any sense to
22 them?

23 Lastly, in a practical reason, there's a good
24 deal of public money spent on this particular document.
25 Not that that should admit it by itself, but taken into

1 consideration of all the other things, this document was
2 prepared by an employee of the Department of Environmental
3 Protection, who spent money on a private organization, the
4 Rural Water Association, Florida Rural Water Association,
5 who actually did the work.

6 And, again, this same issue pops up as it does
7 so many times. I'm usually on the other side of the issue
8 of trying to isolate the Commission from information it
9 ought to have. We are not dealing with a jury here. You
10 all can read this report and decide whether it's good or
11 bad, and there is no particular prejudice to exposing you
12 folks to the kind of information that is in this report.
13 You can certainly weigh it and weigh it well.

14 COMMISSIONER CLARK: Okay. I'm not going to
15 admit the exhibit at this time. I'm not going to -- it's
16 without prejudice to raise its admission into evidence at
17 a later point.

18 MR. McLEAN: I understand. Thank you.

19 COMMISSIONER CLARK: But I would like to have a
20 brief on the admissibility or a memo, or the next time we
21 are in hearing to be prepared more fully on the law with
22 respect to the admission of this exhibit.

23 MR. McLEAN: But you -- pardon me, this --

24 COMMISSIONER CLARK: I'm reserving ruling on it
25 right now. I'm not going to admit it.

1 MR. McLEAN: Thank you, ma'am. But you are
2 reserving --

3 COMMISSIONER CLARK: Let me be clear.

4 MR. McLEAN: I'm sorry.

5 COMMISSIONER CLARK: I'm not going to admit it
6 at this time. I'm reserving ruling on it.

7 MR. McLEAN: I understand. Thank you, ma'am.

8 MR. JAEGER: Are we going to call Mr. LeRoy now?

9 COMMISSIONER CLARK: Yes.

10 Mr. LeRoy, have you been sworn in?

11 THE WITNESS: Yes, I have, ma'am.

12 COMMISSIONER CLARK: Okay.

13 - - - - -

14 MICHAEL D. LEROY

15 was called as a witness on behalf of Staff of the Florida
16 Public Service Commission and, having been duly sworn,
17 testified as follows:

18 DIRECT EXAMINATION

19 BY MR. JAEGER:

20 Q Mr. LeRoy, please state your name and business
21 address for the record.

22 A My name is Michael LeRoy. I work for the
23 Department of Environmental Protection at 2600 Blairstone
24 Road, Tallahassee, Florida.

25 Q Did you prefile testimony in this case

1 consisting of three pages?

2 A Yes, I did.

3 Q Do you have any changes or corrections to your
4 testimony at this time?

5 A No, I don't.

6 Q If I were to ask you the same questions today,
7 would your testimony be substantially the same?

8 A Yes.

9 MR. JAEGER: Madam Chairman, may I have
10 Mr. LeRoy's testimony inserted into the record as though
11 read?

12 COMMISSIONER CLARK: It will be inserted in the
13 record as though read.

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DIRECT TESTIMONY OF MICHAEL D. LEROY

1
2 Q. Please state your name and business address.

3 A. Michael D. LeRoy, Department of Environmental Protection, 2600
4 Blairstone Road, MS 2530, Tallahassee, Florida 32399-2400.

5 Q. Please give a brief description of your educational background and
6 experience.

7 A. BA in German, BS in Civil Engineering, MS in Civil Engineering. 28
8 years with the United States Air Force, 20 of which was as an Air Force Civil
9 Engineer, nine years with the Florida Department of Environmental Protection
10 (FDEP) Drinking Water Program.

11 Q. By whom are you presently employed?

12 A. I am employed by the FDEP.

13 Q. How long have you been with the FDEP and in what capacity?

14 A. I have been with FDEP for nine years. I have been in the Drinking Water
15 Program for eight and a half years. I am presently a Professional Engineer
16 III.

17 Q. What are your general responsibilities at the FDEP?

18 A. I am responsible for monitoring the implementation of the Lead and
19 Copper Rule, managing the Drinking Water Program GPS and GIS project, rule
20 writing, managing the statewide effort to determine which water wells are
21 under the direct influence of surface water, and for providing technical
22 support to DEP district office and Approved County Public Health Offices.

23 Q. Are you familiar with Aloha Utilities, Inc. in Pasco County?

24 A. Yes.

25 Q. Does Aloha Utilities, Inc. have a current operating permit from the

1 Florida DEP?

2 A. The Florida DEP does not issue operating permits to public drinking
3 water systems. Construction permits are all that is required.

4 Q. What are the issue and expiration dates of their permit?

5 A. Not applicable.

6 Q. Is Aloha Utilities, Inc. in compliance with its permits?

7 A. I'm not aware of any construction permits that are open for Aloha
8 Utilities. This information and answers to your other questions would have
9 to be obtained from Mr. Pedro Rivera, Drinking Water Program Manager, 3804
10 Coconut Palm Drive, Tampa, Florida 33619-8318.

11 Q. Are you familiar with the "black water" problem experienced by some of
12 Aloha's customers?

13 A. Yes.

14 Q. To your knowledge, has this "black water" problem been experienced
15 elsewhere in Florida?

16 A. I have been told by others that copper sulfide (black water)
17 precipitates do appear elsewhere in Florida. I have not personally witnessed
18 copper sulfide in Florida except in exhibits provided by Aloha's customers.

19 Q. Are you familiar with the report published in Journal AWWA, Volume 90,
20 Issue 7, July 1198, titled, "Sulfide Induced Copper Corrosion?"

21 A. Yes.

22 Q. Do you agree with the conclusions of that study?

23 A. Basically, yes. Realizing that the study was done under controlled
24 conditions and that the results may not be similar to this case. I agree,
25 however, that there is a problem with Hydrogen Sulfide reacting with some

1 | copper pipes as pointed out in the study.

2 | Q. Do you have anything further to add?

3 | A. No.

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1 BY MR. JAEGER:

2 Q And did you have any exhibits attached to your
3 testimony?

4 A No, I didn't.

5 MR. JAEGER: I tender the witness for cross.

6 COMMISSIONER CLARK: There is no need to make a
7 summary?

8 MR. JAEGER: It's pretty short.

9 COMMISSIONER CLARK: Okay.

10 MR. JAEGER: I think --

11 COMMISSIONER CLARK: I think it may be a -- do
12 you have a brief summary of what your testimony is?
13 Because there are people in the audience who will not have
14 read it.

15 THE WITNESS: It is actually so short. If I see
16 it here, we could go over it real quick. The questions
17 that I -- I don't see -- I guess I don't have a copy of
18 it.

19 As I recall, it was am I aware of the problems
20 with --

21 Thank you.

22 I was asked questions on my educational
23 background, who I am employed by. And general
24 responsibilities at the Department of Environmental
25 Protection. I answered I'm responsible for monitoring the

1 implementation of the lead and copper rule, managing the
2 drinking water program GPS and GIS projects, rule writing,
3 managing the statewide effort to determine which water
4 wells are under the direct influence of surface water, and
5 for providing technical support to DEP district office and
6 approved county offices.

7 The next question was am I familiar with --

8 Q Instead of just reading it all, Mr. LeRoy --

9 MR. JAEGER: Could I just ask him two questions?

10 BY MR. JAEGER:

11 Q Primarily, weren't you asked questions about the
12 Sarah Jacobs Report and the statewide problem dealing with
13 black water?

14 A Yes. There were two questions: One asked if I
15 was familiar with the statewide problems. And I answered
16 yes. And the Sarah Jacobs Report, and I answered yes.

17 Q And I think there is one other question where
18 you are asked if you agreed with the Sarah Jacobs Report,
19 and what was your response?

20 A My response to the -- did I agree, is basically,
21 yes, I agree. The Sarah Jacobs Report is an academic
22 report done under very controlled conditions. So it is
23 not real clear of how applicable it is in actual real
24 life. Expanding a little bit on that answer, for
25 instance, in the Sarah Jacobs Report they used a deionized

1 water that they spiked with a hydrogen sulfide. They used
2 a very low pH, 6.8, as I recall; and a very high pH.
3 Neither of the pHs are typical of the waters that we have.
4 Deionized water is not typical. She has quite a few
5 conclusions. She raises quite a few issues that are very
6 interesting, and that will require a future research.

7 From that aspect, I basically do agree with most
8 of it. But I just caution taking it as being a Bible. It
9 is the only known piece of research I know as to the
10 effects of hydrogen sulfide on copper. And I think there
11 is more research that needs to be done.

12 COMMISSIONER CLARK: Thank you.

13 BY MR. JAEGER:

14 Q Does that conclude your summarization?

15 A Yes.

16 MR. JAEGER: All right. I now tender him for
17 cross.

18 COMMISSIONER CLARK: Mr. McLean.

19 CROSS EXAMINATION

20 BY MR. McLEAN:

21 Q Mr. LeRoy, my name is Harold McLean. I
22 represent the customers and the citizens of the State of
23 Florida generally. And I have a few questions for you.

24 You work at DEP in Tallahassee, right?

25 A That's correct.

1 Q Do you have a geographical territory for which
2 you are responsible?

3 A The people that work in Tallahassee really
4 aren't responsible for any geographical area. The
5 Department of Environmental Protection Drinking Water
6 Program is, in fact, broken down with responsibility for
7 enforcement to our six district offices and to 11 approved
8 Department of Health counties. So we, in fact, have 17
9 offices spread around the state that do the enforcement
10 and compliance work. Headquarters Tallahassee is more
11 responsible for policies, rule writing, technical support,
12 these kind of things, but not on a geographical basis.

13 Q All right. In Page 2, Line 14, you were asked,
14 "To your knowledge has this black water problem been
15 experienced elsewhere in Florida?" Your answer: "I have
16 been told by others that copper sulfide black water
17 precipitates do appear elsewhere in Florida."

18 Who are the others that told you that?

19 A Well, numerous different sources. I have heard
20 it unofficially from utilities. Utilities, of course,
21 don't come to regulators very frequently and talk about
22 this. So there are some that I have heard it from. It
23 has been mentioned at this committee that DCA had put
24 together on the Plumbing Codes Commission that had been
25 meeting in Orlando. I heard quite a bit of it there. So

1 it is various sources that, anecdotal sources that have
2 brought this up.

3 Q Can you quantify for the Commission the
4 incidence of those? I mean, has there been lots of them,
5 a few?

6 A I would say that there is, in the almost ten
7 years, nine and a half years that I have worked for DEP, I
8 have probably heard of 10 or 15 cases of black water
9 around the state.

10 Q All right. And you have heard of the ones at
11 Aloha?

12 A Oh, yes.

13 Q Okay. Now, when you say, "oh, yes," what I
14 would like for you to do, because these things are kind of
15 hard to visualize for us, do us some kind of pie graph
16 with Aloha in there and everyone else. And I don't -- it
17 is difficult to quantify, but the seriousness of the
18 problem, the number of incidences you have heard about,
19 the times you have been contacted by officials and
20 customers and so forth. I would like to know what portion
21 of the entire knowledge you have about black water
22 problems has emanated from Aloha?

23 A Well, that is a little difficult to answer. If
24 you hold me down and make me give you some number, the
25 vast percentage of it stems from Aloha. But, again, a lot

1 of this has to do with the political attention that it has
2 gotten. Other utilities, I don't think, have gotten the
3 political spotlight turned on them like this one has. So
4 this one certainly has gotten more attention than other
5 ones. So I'm really not sure that I can give you a
6 number. This does appear bad from what I have seen here.
7 It appears there is a real problem here.

8 Q You did say the vast majority, though, did you
9 not?

10 A Yes.

11 Q Okay. Now, did the black water cause the
12 political attention, or did the political attention cause
13 the black water?

14 A Oh, I didn't mean to make it sound like the
15 political attention was the cause of anything, no. The
16 black water was the cause of the political.

17 Q Is it accurate to say that black water occurs,
18 from what you have heard, occasionally in other
19 jurisdictions around the state, but predominantly from the
20 Aloha service territory in your experience?

21 A I have heard more from it from the Aloha area
22 than I have any place else.

23 Q Thank you, sir. I want to refer you to Exhibit
24 3, and I'll bet you don't have a copy.

25 A I might have a copy, but it sounded like there

1 may be other things in Exhibit 3 than what I knew. I
2 heard about E-mails and other things. So I'm not sure
3 that in the Exhibit 3 that I am familiar with there are
4 E-mails in it.

5 Q I wasn't so sure, either.

6 Okay. I see the confusion. I'm going to ask
7 you about Exhibit 3 beginning at Page 9 of 99?

8 A 9 of 99. All right. I see your numbering
9 system. From that point on, yes, I am familiar with it.

10 Q Are you the author of it?

11 A Yes, I am.

12 Q Okay. At whose direction -- did you do it at
13 anyone's direction?

14 A Yes, at my supervisor, Mr. Hoofnagle.

15 Q And would you pronounce his name?

16 A Hoofnagle.

17 Q Hoofnagle. To whom does he report?

18 A He reports to Richard Drew, the Bureau Chief.

19 Q Yes, sir. And then to whom?

20 A And in turn to Mimi Drew, the Division Director,
21 and in turn to David Struhs, the Department Secretary.

22 Q Department of Environmental Protection?

23 A Yes, that's correct.

24 Q Tell me about this study, how it came into
25 being, what inspired -- you said you are the author,

1 right? And you did this as an employee of DEP, I assume.

2 A Yes, I did.

3 Q First of all, let me ask you, Mr. Van
4 Hoofnagle --

5 A Van is his first name, Mr. Hoofnagle.

6 Q I'm going to go with Van from now on, because I
7 can pronounce that.

8 A That's fine.

9 Q To what was his -- the extent of his involvement
10 in the report?

11 A Well, he was very -- he was very involved in the
12 report. And, now, the reason the whole report was done
13 was, again, because of all the complaints that were
14 received, the political attention that it was getting.
15 And we, in the department, even though we do state that
16 the water that Aloha has meets existing standards, we
17 recognize that there is a problem there. There is an
18 aesthetic problem that something needs to be done with.

19 So we have a standing contract with the Florida
20 Rural Water Association, a non-profit organization. And
21 there was a lot of mistrust that we felt by the customers
22 of Aloha both towards DEP, DOH, the utility. And in
23 talking it over, we decided that we would hire -- as part
24 of our existing contract, we would just give them
25 additional funding, the Florida Rural Water Association,

1 to perform the data-gathering exercise.

2 The purpose of that exercise was to see if there
3 was any easy methods, cheap methods, that individual
4 customers could use to somewhat ameliorate this problem
5 that they were experiencing.

6 Q And that was the purpose of the report?

7 A Yes.

8 Q And can you describe to the Commission,
9 essentially, what the report -- how you went about that
10 task?

11 A Well, now you asked about Mr. Hoofnagle. And
12 let me say he is the one that designed the -- how the
13 study should be broken up. So what we wanted were these
14 four groups that were on here, talking about these -- why
15 we did these things.

16 There is quite a bit of information in the
17 literature, for instance, concerning the hot water heaters
18 and the anodes. And that the magnesium anode is one of
19 the major contributors to this black water problem. So in
20 two of these four groups we wanted to replace those
21 anodes, changing them from magnesium to aluminum.
22 Supposedly, according to the literature, that was
23 something that should help.

24 We also recognized this as being some type of a
25 bacterial problem. So we wanted to disinfect the water

1 system, hot water system and the hot water lines. So we
2 had the plumber pour in bleach, let it sit for awhile and
3 run it through.

4 Also, being a bacterial problem, we recognized
5 that this type of bacteria thrives at temperatures under
6 150 degrees. And we did find in measuring the
7 temperatures that nearly everybody that we surveyed had
8 water temperatures below that. So they had nice little
9 incubators for this. So we also said turn up the heater.

10 But the plumber then would turn up that heater
11 and leave it up for a few hours along with the
12 disinfectants. But we turned it back down because we
13 weren't willing to have anybody leave their water heater
14 up at 160 degrees or higher, which is the killing
15 temperature for this bacteria, because we were concerned
16 that there might be scalding or some other impact plus the
17 conservation thing.

18 So we drained and disinfect. We turned up the
19 temperature. We replaced the anodes. And on some of them
20 we disconnected the point of entry device, that is the
21 water softeners. There had been quite a bit of contention
22 that the water softeners were exacerbating the problem.

23 So we had -- and the fourth group, of course, we
24 didn't do anything to, we just wanted to kind of take that
25 and measure and see what was happening. So we did that.

1 We received these addresses from two sources.
2 Representative Fasano provided the biggest share of the
3 addresses, and our DEP office provided the rest of the
4 addresses from people that had filed complaints with DEP.

5 We put these addresses together. We laid out
6 what we thought were the parameters that we wanted to look
7 at. We wanted to see what was happening at the point of
8 entry as kind of the -- that was the entry point before
9 any water heater -- or before any water softeners or
10 anything. So we wanted that as a base for the house.
11 Then a cold interior some place, and then a hot interior.

12 So, anyway, then we took the first set of
13 samples before we did anything. We did the modifications,
14 the disinfection, the heat treatment. Then we took a
15 separate set. We came back a few months later, took a
16 third set. And then we took the last set. And we tried
17 to see if there was anything that had any lasting effect.

18 We found nothing that really had any find of
19 lasting effect that we could recommend to customers that
20 they could do themselves or have cheaply done.

21 Q When you pulled samples of the water, did you
22 pull it -- where did it come from from the house?

23 A Some of the houses where -- we used the outside
24 hose bib, if we were sure that that outside hose bib was
25 not following the water softener.

1 Q Yes, sir.

2 A In the cases where the outside hose bibs, in
3 fact, did go through the water softener, we had the
4 plumber install a tap someplace, like near the meter where
5 we could get a sample from. Then we took one from a cold
6 interior tap and one from a hot interior tap.

7 Q That wouldn't be adequate, would it, for DEP --
8 for compliance with DEP's rules, right?

9 A This report in no way reflects anything in our
10 rules from a compliance standpoint. There was a lot of
11 talk here earlier about chain of custody. There was no
12 chain of custody done here. This report was not intended
13 in any shape or form to be a compliance report on Aloha.
14 It was simply to determine whether there was something
15 that could be done cheaply and easily by individual people
16 to remedy or at least ameliorate the problem. So, no,
17 this does not meet our standards, particularly the waiting
18 time.

19 I may just -- there was some talk about the
20 copper. We require as part of the lead and copper rule,
21 that the sample be pulled, the first 1 liter out of the
22 tap after it has stood at least six hours motionless in
23 the pipe. None of these was there any requirement to let
24 this water stand for six hours. So it -- no, nothing here
25 is a compliance type sample.

1 Q Do you vouch for the accuracy of every single
2 number in this entire report, the accuracy?

3 A From the point of view of did I cross-check them
4 with the lab sheets, yes, I proofread everything if I took
5 off the lab sheet and put it in the spread form. Now, we
6 had Florida Rural Water circuit-riders who are, for the
7 most part, as far as I know all of them are licensed water
8 operators and, therefore, know how to take samples. They
9 took the samples.

10 They did some of the immediate testing such as
11 the temperature, the pH, and so on, right there on the
12 spot. And as water system operators, system operators,
13 they would be allowed to do that if they were working at a
14 water plant. The laboratory we used, we used the Pasco
15 County Laboratory, and they did a lot of this work. They
16 are certified by the Department of Health to do water
17 analyses.

18 And where there are methods that are required,
19 we required them. Not all of these tests here are
20 standard tests, such as the sulfur bacteria. That is not
21 one that is in our normal menu. Sulfides are not in our
22 normal menu of tests. But the rest of these we all did
23 require a standard test.

24 Q The Pasco County Laboratory, is that a
25 governmental entity?

1 A Pasco County government.

2 Q It is owned by Pasco County?

3 A The utility, yes.

4 Q Okay. Do you use -- that's not a stand-alone
5 laboratory. That is an adjunct to Pasco County Utilities?

6 A Yes.

7 Q Does DEP routinely accept reports from that
8 particular laboratory?

9 A Yes. They are certified by the state. Any
10 laboratory that does water analyses in the State of
11 Florida has to be certified by the Department of Health in
12 drinking water analyses. Pasco County Utility is.

13 Q Part of that procedure of getting approved is to
14 have things like standard procedure for chain of custody
15 and so forth, isn't it?

16 A If they were doing a test -- let me back up,
17 first of all. DEP does not normally take samples that
18 they pull on a water utility and take them to a
19 laboratory. It is normally the utility's responsibility
20 to take the sample and take it to the utility. We do
21 require chain of --

22 Q You mean to the laboratory?

23 A Yes. What did I say?

24 Q To the utility.

25 A I'm sorry. For the utility to pull the thing

1 and take it to the laboratory. Yes, and in those
2 instances when the utility is doing a test which will be
3 certified for compliance, will be submitted for
4 compliance, there has to be a complete chain of custody
5 all the way through, including the laboratory.

6 Q Now, this study was not for compliance?

7 A Not at all.

8 Q Do you know whether there was any relaxation of
9 their procedures with respect to the chain of custody?

10 A There was no chain of custody documents required
11 to be signed.

12 Q I understand. But do you know whether there was
13 any relaxation of their actual procedures?

14 A Who, the laboratory?

15 Q Yes, sir.

16 A From the point of view of once the laboratory
17 received it from our circuit-rider, no, I don't imagine
18 there would be. I don't know that as a fact, but I would
19 see no reason why they would treat them any differently.

20 Q And you drew some conclusions based upon those
21 analyses as well as other matters, correct?

22 A Well, yes and no. I drew the conclusion that
23 there were really were no conclusions that you could draw
24 from the data.

25 Q And what you relied upon, you relied upon the

1 activities of that laboratory in reaching that conclusion
2 which in and of itself was something of a nonconclusion?

3 A Right.

4 Q Are you comfortable having relied on the county
5 laboratory to that extent?

6 A Yes.

7 Q Let's look to what the conclusions are. They
8 seem to appear on Page 13 of 99?

9 A Uh-huh.

10 Q I read right there where it says conclusions,
11 the results and so forth. Those are the only conclusions
12 which you drew. Will you tell the Commission what
13 reservations you had about drawing -- it says it's
14 inconclusive. Will you tell the Commission what
15 reservations you have about why it is inconclusive,
16 essentially?

17 A Well, again, the purpose of this study was to
18 determine whether there was something we could recommend
19 to individual homeowners that they could do. Could they
20 disinfect their water heater? Could they change the
21 anodes in the water heater and then expect some
22 improvement. Based on the purpose of the study, there was
23 nothing that we felt we could go out and go to individual
24 homeowners and tell them they could do with any lasting
25 effect.

1 Q The study -- you tried several of those changes,
2 didn't you?

3 A Yes, we did.

4 Q And they didn't bring about any results that
5 would eliminate the black water?

6 A No.

7 Q You didn't set out to determine whether the
8 cause for the black water was Aloha or something inside
9 the house, did you?

10 A No, we did not.

11 Q It doesn't answer that question, does it?

12 A No.

13 Q The question that you set out to answer, if I
14 have it correctly, was something simple and cost-effective
15 that the customers could do to lessen the problem that
16 they were experiencing without regard to its source?

17 A That's correct.

18 Q Hold on just a second.

19 You began, I think, earlier to -- going to Van's
20 involvement with the study, he designed the study, right?

21 A Yes. He basically -- it was his idea, the four
22 groups that we should do, and what we should do. We
23 basically talked about it together. We talked with other
24 engineers. But as the supervisor of the section, that was
25 pretty much his decision as to how we would structure the

1 study.

2 Q So is it accurate to say he designed the study,
3 you oversaw it, and the Rural Water Association, Florida
4 Rural Association somewhat executed it?

5 A Yes, I would say that is exactly right.

6 Q Now, those conclusions that we read just a
7 moment ago, those are your conclusion, not Rural Florida
8 Water?

9 A No. They are not Florida Rural Water's.

10 Q Florida Rural Water.

11 A No, they are not the Florida Rural Water
12 Association's at all. All Florida Rural Water did was
13 gather the samples for us and submit them to -- the
14 samples to the lab. The lab sent us the analyses, and we
15 put together all of these sheets that went with this.

16 Q When you -- now, I assume that the
17 circuit-riders went to home sites?

18 A Yes, they went to each one of these home sites
19 that are listed here.

20 Q Did you happen to accompany the circuit-riders
21 to any of those home sites?

22 A No, we didn't.

23 Q Do you know whether any member of Aloha's staff
24 did?

25 A To the best of my knowledge, they did not on any

1 occasion accompany the circuit-riders.

2 Q You have --

3 A We particularly -- because of a lot of the
4 bitterness that was here, we particularly wanted Florida
5 Rural Water to be disassociated from both the utility,
6 from DEP and DOH, because we felt there was quite a bit of
7 mistrust on the customers' part.

8 Q All right. Did you give any instructions to the
9 Florida Rural Water Association not to communicate with
10 the utility?

11 A Not that I recall. I don't think so.

12 Q Okay. And do you know whether communications
13 took place between -- well, let me ask the question
14 differently.

15 Did you communicate with Mr. Porter about this
16 study at all?

17 A Oh, yes, we had talked about it. We saw him --
18 I saw him numerous times in Orlando. And I was telling
19 him we were doing this. It wasn't a secret that we were
20 trying to keep from anybody. Representative Fasano and
21 his aide, Greg -- I forget what his last name is --
22 Giordano, were involved. We were providing them updates
23 on this. So it wasn't like this was something that we
24 were trying to keep from the utility or from anybody else.

25 Q When Mr. Porter discussed this with you, did he

1 suggest any particular course that you should take?

2 A No, he didn't.

3 Q Any particular precaution you should take?

4 A No. He didn't try and influence it in any way.

5 Q Do you know whether Mr. Porter or any Aloha
6 person communicated with Mr. Van Hoofnagle about the
7 study?

8 A As far as I know not. I'm not aware of them
9 ever talking to him about it.

10 Q Is it accurate to say that you regard this study
11 as an unbiased attempt to determine whether customers
12 could simply do something cost-effective about the black
13 water they were receiving?

14 A Yes, that was the whole purpose of it.

15 Q And you reached the conclusion. When you say
16 the results are inconclusive that worries me a little bit,
17 because it does seem like you concluded that none of the
18 changes that you all did had a significant effect on the
19 incidence of the water, is that correct?

20 A That's correct.

21 Q So to that extent it is a conclusion. You just
22 didn't conclude what you were, perhaps, hoping to
23 conclude?

24 A You are correct.

25 Q And in the back of that report, the last few

1 pages, there is some articles, and bibliography, and other
2 things. How did those things fit in? Let's start, for
3 example, with your appendix.

4 A Well, those appendix -- appendices were selected
5 from quite a bit of literature that is out there on these
6 similar type problems. And I just selected those because
7 I felt they were very pertinent to this. And those
8 appendices were some of the things that influenced what we
9 wanted to look at and why we structured it, why we wanted
10 to change the anodes, why we wanted to disinfect it, why
11 we wanted to raised the heat. Those thoughts, those
12 concepts are contained in those appendices. So I attached
13 those to the back as kind of a little backup data or a
14 little backup information for anybody who might look at
15 this to see where we were coming from.

16 Q All right. Let's turn lastly to the conclusions
17 that you drew on Page 13 of 99.

18 A Okay.

19 Q You say the presence or absence of water
20 conditioning units in homes appeared to have no effect on
21 the generation of hydrogen sulfide and the subsequent
22 reaction with the copper pipes?

23 A Uh-huh.

24 Q Now, you heard that earlier discussion and it
25 seemed like someone believed that you thought that

1 hydrogen sulfide was somehow generated by the softening
2 unit. Did you ever believe that?

3 A Well, I think that that sentence probably is
4 getting a lot more scrutiny than the thought that I
5 actually put into it when I wrote it. There was -- there
6 has been quite a bit of discussion as to the water
7 softeners influencing the condition and somehow being, I
8 guess, responsible for quite a bit of it. So what I'm
9 saying is -- attempted to say, was that the appearance --
10 I probably shouldn't have said generation of the hydrogen
11 sulfide, because I believe the generation is occurring
12 mainly in the hot water tank, but it can occur in other
13 parts of the line. So generation of the hydrogen sulfide
14 was probably not a real good term.

15 But what I really want to say is that the water
16 conditioning units, whether they were in-line or weren't
17 in-line, from the data, we could not see whether it was an
18 effect.

19 Q And that's really all you wanted to say, isn't
20 it?

21 A That's really all I wanted to say.

22 Q Does it matter a whole lot where the hydrogen
23 sulfide is generated in that particular view that you
24 have?

25 A No, not really. If it is generated, there is a

1 problem in the house.

2 Q Well, let's suppose that it was naturally
3 occurring, and that it arrived at the house from some
4 other source. It would still be true, would it not,
5 according to your study, that taking -- either having or
6 not having the water softener didn't make any difference
7 on the black water problems, is that correct?

8 A I believe that is probably true, yes.

9 Q All right. And you understand it is a thesis of
10 this utility that the black water problem is either
11 caused, or exacerbated, or both by home softening units?
12 You are aware of that?

13 A I have heard that, yeah.

14 Q And you disagree with that based upon this
15 study?

16 A Let me say if I had to be forced into a yes or
17 no answer, I would say, yes, I disagree. But I would like
18 to just modify that just a little bit.

19 A water softener, I believe, in fact, will
20 exacerbate corrosion. One of the things that we use in
21 potable water is what is called the Langelier Index, to
22 see whether water is corrosive or not corrosive. It's
23 kind of a general index; it is not exact.

24 One part of the equation in the numerator is the
25 concentration of calcium. So if you have no calcium, the

1 equation basically blows up and leaves you with a very
2 corrosive water. So, theoretically, if you run it through
3 a water softener and you come up with no calcium, you will
4 you have the corrosive water.

5 Now, the thing that I don't know, and I'm not
6 prepared to address is -- let me stop. There are many
7 different kinds of corrosion. The hydrogen sulfide
8 reacting with the copper is certainly one type of
9 corrosion. There are other kinds. There are, as was
10 mentioned earlier, cells that are set up because of the
11 flux in the -- the plumber used too much flux. The City
12 of Orlando believes that lightning strikes have caused
13 some of them. There is a general type corrosion. And the
14 general type corrosion is what the lead and copper rule is
15 after.

16 And I'm not sure in my own mind as to the
17 relationship of this general corrosion that the lead and
18 copper rule is looking at and the copper sulfide that is
19 generated from the hydrogen sulfide. Now, there has been
20 talk about the orthophosphate laying down a coating; and
21 that's true, there would not be a coating. But I really
22 don't know in my own mind how -- because it occurs in
23 homes without water softeners, I am not really sure in my
24 own mind what effect the sulfides have on this calcium
25 orthophosphate.

1 Sulfides, when they do combine with calcium to
2 form calcium sulfides, are a very loose, poor scale. So I
3 don't know what influence the sulfides have on the calcium
4 phosphate that we want to lay down. I'm not sure that I
5 am willing to say that a water softener in-line creates --
6 exacerbates the black water problem. I'm just not willing
7 to take that step.

8 COMMISSIONER CLARK: Well, let me ask you this.
9 It seems to me you are willing to admit it is corrosive.

10 THE WITNESS: It's corrosive.

11 COMMISSIONER CLARK: And what causes the copper
12 sulfide is the fact that the copper corrodes and bonds
13 with the sulfide -- hydrogen sulfide?

14 THE WITNESS: Yes.

15 COMMISSIONER CLARK: So I guess I'm wondering
16 why you won't make that leap.

17 THE WITNESS: Well, because there could be
18 other -- there could be other products that are formed.
19 In the absence of sulfides, you can still have very
20 corrosive water without ever having the sulfide there.

21 COMMISSIONER CLARK: But I guess when you have
22 corrosive water and the sulfides --

23 THE WITNESS: It becomes more corrosive.

24 COMMISSIONER CLARK: Right.

25 THE WITNESS: So how much of it is -- what

1 effect would this orthophosphate have in slowing this down
2 after it has already started, I don't have any idea. And
3 I wouldn't even want to speculate whether the
4 orthophosphate being added once this corrosive engine has
5 started, what it would do to it.

6 COMMISSIONER CLARK: I guess that is the
7 orthophosphate issue, but it is not the issue of the water
8 softener.

9 THE WITNESS: Well, if I was understanding what
10 the thesis was that you just mentioned from the utility,
11 is that the water softener strips out the calcium. And
12 without the calcium, then the orthophosphate can't lay
13 down the protective film. This is probably true. But
14 what I'm saying is even if the calcium were there,
15 operating with the orthophosphate laying down this film,
16 I'm not sure what effect the sulfides would have on that.

17 It may interfere to such a point that it
18 wouldn't lay down a good one anyway. Because, as you
19 mentioned, it is already appearing in people that don't
20 have water softeners. So we don't know. And there is
21 this one study, the Sarah Jacobs Study, on that. And
22 water softeners never entered into her study at all.
23 There is no knowledge of this.

24 COMMISSIONER JABER: Is your hesitancy also
25 increased by the fact that we have seen this level of

1 corrosion in brand-new developments that do not have the
2 water softening devices?

3 THE WITNESS: Yes.

4 COMMISSIONER JABER: So you are -- the way I
5 understood your testimony is you are really hesitant to
6 pinpoint the cause to the water softener because the
7 studies have been across-the-board, then?

8 THE WITNESS: Yes.

9 I would not -- I would not go and recommend, as
10 the utility has done, for people to take their water
11 softeners off-line. I don't really think that once that
12 corrosion is started, taking it off-line is going to do
13 anything for them.

14 COMMISSIONER JABER: What about in terms of
15 changing the copper piping? Is it, at this point, that
16 the piping needs to be changed because the copper pipes
17 are corroded?

18 THE WITNESS: Well, I guess that is like if you
19 have a car engine and you scour the cylinder walls and
20 damage the piston rings and valves, at some point you are
21 going to have to do something. And we have people in our
22 own DEP living in the Hillsborough area and over in
23 Orlando that have had to go through and completely replumb
24 their homes because of copper corrosion. And in this type
25 of corrosion that I am referring to that is particularly

1 occurring over in Orlando was not a black water; it was
2 one of a more general type corrosion, pinhole leaks, and
3 so on.

4 But once the pipes get damaged to the point
5 there is really -- it is just like a scoured car engine,
6 you can't turn back and make it new again. The thing I
7 would be concerned about are the new homes that are coming
8 on. We need to do something to protect them.

9 COMMISSIONER JABER: What kinds of things could
10 we do to protect the new homes?

11 THE WITNESS: Well, the study that the engineer
12 for Aloha, Mr. Porter, has gone through, I think, is the
13 correct solution. That is, the packed tower aeration.
14 That is the one thing that has proven -- we have 1,000 --
15 we have 1,236 water plants in the State of Florida that
16 already use aeration for taste and odor control. There
17 are other water plants that use it because they have some
18 other form of pollution, but this 1,236 are specifically
19 using it because of hydrogen sulfide.

20 COMMISSIONER JABER: Okay. For taste and odor
21 control. But it would not help with the coloration of the
22 water.

23 THE WITNESS: Well, for this black water
24 condition, yes, it would. If you eliminate, if you
25 actually remove the hydrogen sulfide from the water, then

1 you are not going to have that reaction occur in the
2 houses. What is happening here in the Aloha area, I
3 believe, is the hydrogen sulfide is not removed; the
4 hydrogen sulfide is simply converted to a different form
5 and then reconverted back again. But the packed tower
6 aeration that Mr. Porter recommended as a solution
7 actually removes it from the water, that works.

8 COMMISSIONER CLARK: But what you are saying is
9 that will help new homes and --

10 THE WITNESS: In homes that haven't already been
11 infected, it will certainly help them.

12 COMMISSIONER CLARK: Right. But for those that
13 already have the problem, it won't help.

14 THE WITNESS: Well, now I've got to fall back on
15 the Sarah Jacobs Report. Again, this is the first report
16 like this. And she predicts in her report that the
17 corrosion will continue even as low as .01 milligrams per
18 liter of hydrogen sulfide.

19 So if there is even traces in there, she is
20 predicting that it will continue. I have no evidence to
21 refute that. But I go back to my opening statement; that
22 is an academic study that was done under very controlled
23 laboratory conditions. If the utility were to put in
24 aeration and remove the hydrogen sulfide, after some
25 period of the water systems flushing themselves out in the

1 homes, there may be an improvement. I would hate to say
2 no, but I certainly can't say yes.

3 COMMISSIONER JACOBS: How is it that -- let me
4 digress for a moment. You indicated that you were aware
5 of some other instances in Orlando and other places where
6 there has been corrosion, not necessarily black water.
7 How can you determine, with any level of precision, where
8 the problem will occur? Can you point to a well with
9 certain characteristics? It doesn't sound like that that
10 is possible.

11 THE WITNESS: I'm not sure I understand your
12 question, but let me try to answer it, anyway. If you
13 mean where would it occur, like in individual homes --

14 COMMISSIONER JACOBS: No. No. I want to -- we
15 have -- I understand that there is this need to look at
16 the homes. But if what we are saying is that our approach
17 to dealing with this issue is to figure out how to get
18 hydrogen sulfide out of the water, then the only solution
19 is to put the requisite equipment on every well.

20 THE WITNESS: Every well that has hydrogen
21 sulfide in it, yes.

22 COMMISSIONER JACOBS: Which is an extremely
23 expensive option.

24 THE WITNESS: Yes, it is.

25 COMMISSIONER JACOBS: The alternative is to look

1 to find out if that solution is necessary in every
2 instance. Is that possible?

3 THE WITNESS: That is a difficult question to
4 answer. If you have hydrogen sulfide, and you have iron
5 pipes, and you have copper pipes in the area that you're
6 distributing to, and you have it at any kind of a
7 significant level, and I'm not sure what a significant
8 level is, I would have to say probably .5, maybe .05 and
9 above would be significant, then it probably should be
10 removed.

11 COMMISSIONER JACOBS: Thank you.

12 BY MR. McLEAN:

13 Q Yes, sir. Here again, in returning to this
14 report, in addition you all looked at 35 or --

15 A Florida Rural Water Association looked at the 35
16 residences, right.

17 Q And then you made some changes in some
18 residences, and no changes to others, and then you got
19 analysis of the water on three separate occasions.

20 A That's right.

21 Q And that's the scientific part of it, which is
22 reflected in the lab reports here. Again, not to the
23 level of compliance but to the level of satisfying you
24 that you made a reasonably good test, correct?

25 A Uh-huh.

1 Q And in addition to that, you also asked the
2 customers to give a subjective view of what the effect
3 was. And is your conclusion that, the conclusions that
4 you list, also based on what those subjective impressions
5 of the customers are?

6 A Yes. If you have gone through those, most of
7 the customers reported that either no change or it got
8 worse. There were a couple that did see an improvement.
9 But overall, looking for something that we could
10 recommend, we did not see enough evidence that there was
11 something we felt we could go out and tell the customers
12 to do.

13 Q Yes, sir. You are aware that this proceeding is
14 about quality of service provided by Aloha, right, that is
15 what we are all down here working on? Are you indicating
16 yes?

17 A Yes. I thought you were going on with your
18 question. I'm sorry.

19 Q Thank you, sir. Do you believe this study that
20 you all have done would be of use to the Commission in
21 that endeavor?

22 A I think they could use it, yes.

23 Q You are not suggesting that somebody's life, or
24 liberty, or property should be taken or restricted based
25 upon this report, are you?

1 A Certainly not.

2 Q And if you were, you would suggest perhaps a lot
3 higher level of science and statistical analyses?

4 A Yes, most definitely.

5 Q Chain of custody, and things like that?

6 A Most definitely.

7 Q But that wasn't your purpose, was it?

8 A That was not.

9 MR. McLEAN: I have no further questions. Thank
10 you very much.

11 CROSS EXAMINATION

12 BY MR. DETERDING:

13 Q Mr. LeRoy, isn't it true that the FDEP is the
14 entity that identified the black precipitant which some of
15 Aloha's customers have experienced as copper sulfide?

16 A Yes and no. The person from DEP took some
17 samples. It was sent to the Department of Health who
18 analyzed it. The Department of Health is the one that
19 determined that the black residue was copper sulfide.

20 Q But from a sampling taken by DEP?

21 A Yes.

22 Q And do you have any idea where those samplings
23 were taken from?

24 A No, I don't. I wasn't involved with that
25 portion of it.

1 Q Have you been involved in the study of copper
2 water pipe corrosion in Florida on behalf of DEP?

3 A On behalf of DEP? Do you mean DCA?

4 Q Well, I --

5 A Part of the Plumbing Code Commission?

6 Q Yes. I mean, I'm just asking if you have been
7 involved in this study of this?

8 A Yes.

9 Q And the other thing I believe Mr. Porter
10 referred to was a focus group?

11 A Yes.

12 Q Is that what you are talking about?

13 A That's correct.

14 Q Would you agree that the hydrogen sulfide
15 removal is the indicated solution to resolve copper
16 corrosion at least as far as what Aloha can do?

17 A Yes, I do.

18 Q And would you agree that packed tower aeration
19 is the treatment that is generally called for for the
20 removal of hydrogen sulfide in water systems?

21 A Yes, I do.

22 COMMISSIONER CLARK: Mr. LeRoy, let me ask a
23 question along those lines. There has been some
24 indication that there are increasingly stringent
25 requirements that Aloha is going to have to comply with by

1 2003, I think. For those requirements, what will be the
2 type of equipment that will need to be installed?

3 THE WITNESS: Well, at this point I'm not aware
4 of anything that is coming that will directly impact
5 Aloha. It was mentioned earlier by Mr. Porter, if I
6 remember correctly, that the THMs were at the 60 and 70
7 level. I may not recall that exactly, but I know it was
8 below the 80. Eighty is going to be the level that this
9 first increment is. And as long as they are running at 60
10 to 70, they are well below it.

11 COMMISSIONER CLARK: Let me ask you. Look on
12 Page 1 of Exhibit 3. It says --

13 THE WITNESS: Page 1 of 13?

14 COMMISSIONER CLARK: One of 99.

15 THE WITNESS: One of 99.

16 COMMISSIONER CLARK: The very first page.

17 THE WITNESS: Okay.

18 Excuse me. Let me move over a little bit. The
19 air conditioning is dripping on me.

20 I'm sorry. Go ahead.

21 COMMISSIONER CLARK: Then the conclusion in
22 Paragraph 3, is that where it says, "The Safe Drinking
23 Water Act requires by 2003 systems serving over 10,000
24 meet stricter monitoring of the THM standards."

25 THE WITNESS: I'm not familiar with this

1 document. If you will give me a second to read this here.

2 The first sentence is certainly correct. The
3 Safe Drinking Water Act will require systems over 10,000
4 to meet stricter monitoring. From the second sentence on,
5 though, I can't agree with that. From what I have seen of
6 Aloha's analyses, there is no evidence to suggest they are
7 going to have difficulty complying with it.

8 COMMISSIONER CLARK: What I was trying to
9 explore was, is there going to be a time that packed
10 aeration is going to be required anyway for other reasons?

11 THE WITNESS: I don't know of anything else that
12 would cause, at this time, would cause that.

13 COMMISSIONER CLARK: Thank you.

14 Mr. Deterding.

15 BY MR. DETERDING:

16 Q Yes. You were just discussing the need for
17 facilities, I think, to meet the THM standard. Isn't it
18 true that during the second round, or during the lifetime
19 of any new facilities, such as a packed tower and so forth
20 added by, any new treatment facilities added by Aloha that
21 there would be, there are expected additional reductions
22 in that THM standard?

23 A I'm not sure I understand that question.

24 Q Well, do you anticipate a second round of THM
25 reduction beyond --

1 A Oh, a Phase Two to this rule?

2 Q Yes.

3 A Yes, there is a Phase Two. I don't know what is
4 going to be in it yet. EPA has historically changed
5 things radically from what they proposed. They had, at
6 one time, been talking, I believe, 60. But until they
7 come out with something more definitive, at this point I
8 couldn't say.

9 Q And do you have any idea when that Phase Two
10 might be? Would it be before, say, 2015?

11 A I would hope that it would be before 2015, yes.
12 But when -- no, EPA at this time is really wrapped up in
13 some steep rulemaking. Quite a few rules of different
14 kinds which, incidentally, may be coming back to your
15 question. I have no idea what the radon levels are.
16 There is a radon rule coming that may affect this utility.

17 If EPA adopts the level of 300 picocuries per
18 liter, we are estimating that something like 35 percent or
19 so of the utilities in Florida might be effected. I don't
20 know what their radon levels are. Packed tower would be
21 certainly a method of treatment for radon. So there may
22 be one.

23 COMMISSIONER CLARK: Let me just ask you one
24 question. There seems to be some dispute as to whether
25 hydrogen sulfide can be eliminated by a filter?

1 THE WITNESS: By a filter?

2 COMMISSIONER CLARK: A type of aeration.

3 THE WITNESS: Hydrogen sulfide is a gas and
4 filters don't really do much for gases. For instance,
5 reverse osmosis is one of the tightest filters there are,
6 used to desalt water. And hydrogen sulfide goes right
7 through those. And part of the treatment process for
8 reverse osmosis is to de-gas it and take out the hydrogen
9 sulfide when it exists.

10 COMMISSIONER CLARK: Okay. Mr. Deterding.

11 MR. DETERDING: Yes. Thank you.

12 BY MR. DETERDING:

13 Q You were asked about by -- about the number of
14 cases, black water cases you were aware of. I think you
15 used the number ten. Are you talking about homes, or
16 systems, or --

17 A Utilities that I have heard that have had it.

18 Q Okay. And during your involvement in this
19 issue, you -- have you seen this in places other than
20 around Aloha's service territory, such as Jacksonville and
21 this corridor that Mr. Porter described, Jacksonville,
22 Orlando?

23 A The corridor he describes is where we have had
24 the biggest problem with copper corrosion. It just seems
25 to be very thick through here. Down the east coast, down

1 Broward, Brevard, down into Miami/Dade, they tend to
2 practice a different type of water treatment down there,
3 lime softening. They have higher pHs, and they have lead
4 problems down in there, lead corrosion. Where we in this
5 area that we are sitting in right now have lower
6 pHs, which tend to be more copper problems.

7 There are a few copper problems stretching down
8 through Sarasota and down towards -- I'm trying to
9 remember -- I think there was one down in Lee County, all
10 the way down there that had copper problems.

11 Q But what we have been talking about, the
12 reaction, the black water, which is caused by a reaction
13 of hydrogen sulfide with copper pipe, is a copper
14 corrosion? Is copper corrosion, is it not?

15 A Copper and iron. Although there aren't a lot of
16 homes plumbed with iron. But if they were, they would
17 also see a similar problem.

18 Q So while you may not have seen the black water
19 issue in but ten systems, the issue of copper corrosion is
20 one that is much more prevalent, just maybe not in that
21 form, correct?

22 A Very pervasive, yes.

23 COMMISSIONER JACOBS: When you say very
24 pervasive, could you characterize that for me a little
25 bit?

1 THE WITNESS: Well, as I heard mentioned here,
2 and it was correct, I believe maybe Mr. Porter did. Duval
3 County has gone as far as to take for their residents
4 building codes to remove copper as being a material that
5 can be used. Duval County had a tremendous amount of
6 problems. And I was at one of the meetings in Orlando on
7 this. They had the building permit person there who
8 issues building permits. And I don't remember the numbers
9 that he discussed, but he talked about the numbers of
10 building permits that they issued to plumbers to replumb
11 buildings, and it was just a really high number.

12 And as he pointed out, there were a lot of
13 plumbers that went and replumbed homes without ever
14 getting building permits. So he wasn't sure how big the
15 problem was. Orange County and the City of Orlando and
16 Seminole County have had tremendous problems with copper
17 corrosion.

18 I understand from a consultant in Orlando that
19 Polk County has many problems, including black water
20 problems in Polk County. So it's a very pervasive thing
21 here. Pinellas County has -- Pinellas County Water
22 Utility has a lab director there who got onto this problem
23 actually years before the lead and copper rule came into
24 effect. Pinellas County was having extreme difficulty
25 with apartment buildings developing pinhole leaks. And

1 they worked on this for a number of years.

2 And this lab director over there had written
3 papers in the technical literature on the things they did
4 to correct the problems in Pinellas County. And they have
5 pretty well got those under control now over there. But
6 Pinellas County was a hot bed of corrosion.

7 COMMISSIONER JACOBS: And you indicated that --
8 oh, maybe it wasn't you. Maybe it was Mr. Porter. But
9 the corrosion from some of those other areas was not due
10 to hydrogen sulfide. To what extent --

11 THE WITNESS: I'm not sure. I'm not sure
12 whether they were hydrogen sulfide or not. I do know that
13 Orlando and Pinellas County experienced many pinhole
14 leaks, where all of a sudden somebody would be sitting in
15 their home and an overhead pipe would start to squirt
16 water and, you know, the ceiling would fall or something
17 like that.

18 Whether it was the hydrogen sulfide that caused
19 it or whether there was a general type corrosion or, as we
20 discussed in these meetings down in Orlando, there seems
21 to be some very good evidence that a lot of these
22 corrosion problems are caused by the plumbers themselves
23 when they put these joints together. They use too much of
24 the material that they use to clean the joints, they leave
25 globs of it inside. And these improperly put together

1 joints set up little corrosion cells.

2 And this little corrosion cell is like a little
3 miniature battery right there at this imperfection. And
4 eventually that eats away and punches a hole, a pinhole
5 leak. So there are numerous reasons why. But if you have
6 the right conditions, as Mr. Porter pointed out, there is
7 all kinds of corrosion that can take place.

8 COMMISSIONER JABER: Has Duval County actually
9 issued an ordinance or enacted an ordinance to deal with
10 copper piping replacement?

11 THE WITNESS: Yes, they did.

12 COMMISSIONER JABER: Have you worked with Pasco
13 County in that regard? Has DEP notified the county?

14 THE WITNESS: No. Representative Fasano went to
15 a county commission meeting, and he proposed that the
16 county commission ban it. And he was turned back by the
17 county commission.

18 COMMISSIONER JABER: Has he --

19 THE WITNESS: According to the newspaper. I
20 read that in the St. Pete Times. I wasn't there, and I
21 don't know that firsthand. But the St. Pete Times
22 reported that.

23 COMMISSIONER JABER: Do you know if DEP is
24 thinking about legislation this session or the next to
25 deal with the problem of aesthetic quality as well?

1 THE WITNESS: No. No, they are not.

2 COMMISSIONER JABER: Have you talked to
3 Representative Fasano at all about legislative changes
4 that may --

5 THE WITNESS: I have not talked to him. And I
6 would hope that the Legislature does not get into the
7 business of setting aesthetic standards.

8 COMMISSIONER JABER: I'm really talking about
9 the DEP statute and focusing on the standards in that
10 statute that would include addressing the aesthetic
11 problem.

12 THE WITNESS: Well, what the, I believe it is
13 403 in the Florida Statutes, basically does is directs us
14 to adopt the EPA rules. EPA has a set of secondary rules
15 or standards which are aimed at aesthetics. Those rules,
16 those standards do not include hydrogen sulfide.

17 COMMISSIONER JABER: When does it stop becoming
18 aesthetics? Is DEP of the opinion that this water is
19 drinkable?

20 THE WITNESS: Well, I wouldn't drink it out of
21 the hot water, whether I was up in Tallahassee or whether
22 I am down here. Hot water is not considered the potable
23 water source.

24 COMMISSIONER CLARK: How many people know that?
25 I just learned it today. I always use hot water.

1 THE WITNESS: Really? I don't know. I guess I
2 have known that since I have been a kid that you don't use
3 hot water.

4 COMMISSIONER CLARK: When it is cold outside, I
5 take a drink of hot water as opposed to cold. I'm never
6 going to do that again.

7 THE WITNESS: Well, hot water, by virtue of --
8 you know, when it is hot, the corrosion potential goes up.

9 COMMISSIONER CLARK: Well, I know that now.
10 Thank you.

11 THE WITNESS: Yeah. All right. I'm just -- I
12 just assumed that everybody knew that.

13 COMMISSIONER JABER: But we heard testimony, Mr.
14 LeRoy, yesterday that indicates that the gray water, black
15 water has come out of the cold tap, as well.

16 THE WITNESS: Oh, it very well could. Down here
17 in this area you are talking about homes that the pipes go
18 up through the attic. And those attics, during the summer
19 it gets up to 140 or more degrees. So they go off for the
20 day, and they very well could have it in the cold. It's
21 more prevalent in the hot water. But I'm not at all
22 surprised that somebody sees it in their cold water.

23 COMMISSIONER JABER: But you would agree with me
24 that when there is that black slimy substance, or black
25 sediment, that it is not water that is drinkable.

1 THE WITNESS: Oh, I wouldn't drink the black
2 slimy substance, no. I wouldn't want this at all in my
3 plumbing. All right. If I did have it, and I were forced
4 to live with it, then I would let my tap run and clear the
5 line.

6 When I was a child back in grade school and in
7 junior high, where I lived in Ohio we had hydrogen sulfide
8 that was so bad that it would bubble when you took a glass
9 of it. Pipes were very corrosive or corroded. So I have
10 really had a lot of experience with it. And I wouldn't
11 want it. I wouldn't be happy with it, either.

12 COMMISSIONER JABER: All right. So you wouldn't
13 drink it, certainly not without letting the tap run for a
14 while.

15 THE WITNESS: Correct.

16 COMMISSIONER JABER: How does that fit into the
17 statewide policy of conservation?

18 THE WITNESS: That's a good question. For the
19 black copper sulfide hydrogen -- the black copper sulfide,
20 I'm not sure you can fit that in with conservation. I
21 would tell anybody that's got it, you know, to clear your
22 pipes before you use it. Or if I were having that
23 problem, as I saw some of these people, I'd be buying
24 water down at Publix, even though it's what, a dollar,
25 dollar and a half a gallon for, you know, making coffee

1 and such things with.

2 COMMISSIONER JABER: Let me go a step further.
3 Are you aware that Pasco County has water restrictions?

4 THE WITNESS: Yes.

5 COMMISSIONER JABER: So not only are they --

6 THE WITNESS: Somebody's mayor down here, by the
7 St. Pete Times, was tabbed as being one of the biggest
8 users of water in the county.

9 COMMISSIONER JABER: So not only are they
10 violating the statewide policy of being conservative with
11 their water use, they are also violating Pasco County's
12 water restrictions.

13 THE WITNESS: By letting your tap run a little
14 bit, I don't -- there is water that is used so much more
15 than just clearing your line to get a drink.

16 COMMISSIONER JABER: Do you think the utility
17 violates the Pasco County restrictions when they flush
18 their hydrants four times and five times a week?

19 THE WITNESS: That kind of surprised me. I have
20 been wanting to hear Mr. Watford -- I guess you were going
21 to talk to him about that. That does seem excessive.

22 COMMISSIONER JABER: Do you think DEP would in
23 the very near future consider this not only an aesthetic
24 problem but a quality of service problem so that maybe the
25 standard could be increased by law?

1 THE WITNESS: I would predict that we will not
2 see DEP set a standard soon. And if you want me to talk
3 to that a little bit I -- I had a feeling from what you
4 said yesterday that you might ask that. And I made myself
5 a few notes as I was going.

6 COMMISSIONER JABER: I do. And let me tell you
7 why. Because the second question will be, then tell me
8 what the Commission can do.

9 THE WITNESS: You're going to put it on me.
10 Okay. Here is why I don't think DEP is about to set a
11 standard. First of all, EPA does not have a standard.
12 And I have a document that is an EPA document dated August
13 1977, entitled "State of the Art of Small Water Treatment
14 Systems." And in there on one of the pages on hydrogen
15 sulfide, what a small system can do, they make the
16 statement the proposed maximum level for hydrogen sulfide
17 is .05 milligrams per liter.

18 Now, EPA put that into a document in 1977. So
19 23 years later that has never been promulgated by EPA. So
20 I have no idea why. But I am guessing that EPA has shied
21 away from it because it is awful hard to handle. It is a
22 very difficult standard to set. I doubt if they are going
23 to tackle that, because it is not a health standard. It
24 is a secondary aesthetic. If it were a health -- if there
25 were health hazards associated with hydrogen sulfide at

1 the levels that we find them in drinking water, EPA might
2 be anxious to get out there.

3 And when this question first came up, Van
4 Hoofnagle, who I worked for and we mentioned before, sent
5 out a query to the water -- drinking water directors of
6 the other 50 states asking all of the states whether
7 anybody had a standard for hydrogen sulfide. We received
8 answers back from most of them. And there were no other
9 standards, no other state has set a standard.

10 Now, some of the problems that we would have in
11 setting a standard, if we were to set an aesthetic
12 standard, it would apply to all of the community systems
13 in the State of Florida, everything from the great big
14 giants down to the little mobile home court of 25 people
15 out in the middle of Lake or Polk County someplace.

16 I guess we could put in a special exemption for
17 them saying that, you know, below so many people you don't
18 have to comply with this rule. But then we would have a
19 decision of is it going to be 350 people, 500, 1,000. We
20 are going to have to make a decision.

21 And the smaller a system gets on a per capita
22 basis, the more expensive it would become to install
23 adequate treatment. So, for a very large system, a large
24 system might be able to install the treatment and spread
25 the cost around, where a small system it would become very

1 difficult.

2 COMMISSIONER JABER: Do you think it would be
3 more expensive than their buying bottle water, and
4 filters, and RO systems?

5 THE WITNESS: Well, you know, if people were
6 using their water only for their personal needs, but we
7 see so much of it being used in watering lawns, and
8 flushing toilets, and things where reuse water would be
9 good. I was kind of surprised to hear about some of the
10 prices people are paying for these water systems down
11 here.

12 And that very thought occurred to me that if
13 they would invest that in their water system, they
14 wouldn't need this. But it sounds like they are making
15 individual investments, and they don't want to invest in
16 the water system. So it is kind of a circular thing I'm
17 not quite sure what to do with.

18 Another reason would be, of course, is that
19 setting a standard would not apply just to Aloha, but
20 would apply to all water systems. And the problem of
21 hydrogen sulfide in the State of Florida, I believe, is
22 very widespread. As I mentioned, 1,236 plants right now
23 that we know of aerate for taste and odor.

24 Then we get to the question of what standard to
25 set. I'm not sure I would know what standard to set. The

1 literature says that hydrogen sulfide can be detected at
2 .5 milligrams per liter, that it can be tasted at .05, a
3 factor of 10 milligrams per liter. And the Sarah Jacobs
4 report suggests that corrosion can be induced as low as
5 .01. The EPA document that I referred to stated what,
6 that at .05 was what they were thinking about, .05,
7 thinking about back in 1997 or '77.

8 Now, if we start requiring .05 we are talking
9 about more than 99 percent removal. For large water
10 systems this may be an impossible standard. When we get
11 to these smaller water systems, to require a 99 percent
12 removal is going to become very difficult.

13 Now, I think we have already seen from Aloha's
14 experience it has to be removed. It can't be converted to
15 sulfur and sulfates and then sent to the house where it
16 gets converted back. You have got to actually have a
17 removal process in order for it be effective. So we, in
18 DEP, would --

19 COMMISSIONER JABER: So what Aloha is doing,
20 then, is not effective, because they have got the
21 conversion process. They don't have the removal process.

22 THE WITNESS: Yes.

23 COMMISSIONER JABER: Thank you.

24 COMMISSIONER CLARK: Well, it can be effective
25 so long as it is not reconverted?

1 THE WITNESS: Yes.

2 COMMISSIONER JACOBS: I should have asked this
3 earlier; but if you have the answer, that's fine. That
4 conversion process is efficient in that it doesn't create
5 any additional sulfates, does it, than were there
6 originally --

7 THE WITNESS: No.

8 COMMISSIONER JACOBS: -- than the sulfides that
9 were there originally. So it just converts what --

10 THE WITNESS: Reconverts it back. It is a
11 reversible process. The chlorine hits it, turns it into
12 one thing. It gets into the house, and the conditions in
13 the house convert, probably not all of it, but some of it
14 back. Enough to create this problem.

15 COMMISSIONER JACOBS: I will pose this question
16 to you that I posed earlier: Why would we see the
17 customers with the filters who appear to have been
18 affected by the hydrogen sulfide?

19 THE WITNESS: I'm not sure I can answer that. I
20 think I have to agree with Mr. Porter on this, that I'd
21 have to go out and do a little more research. There are
22 other things that can be causing this without having any
23 knowledge. Number one, this is ground water. It is
24 coming up from underground. There may be some sediments
25 carried along with that, some very fine particles.

1 I don't know anything about the iron conditions
2 in this area. But if there is iron in the water, iron
3 when it is coming from underground in a completely
4 anaerobic condition will be dissolved. And some forms of
5 iron as soon as it hits air begins precipitating. It was
6 mentioned that there was a red condition. That has the
7 sound of iron to me, but I don't know. So I really
8 wouldn't want to offer an opinion there.

9 COMMISSIONER JACOBS: Okay. But let's see if
10 this would be reasonable for you to address. If you have
11 done the conversion, if you have done the transfer at the
12 well site to convert the sulfides to sulfates, and given
13 that relatively short distance from the meter to what most
14 of these customers have described as the locations of
15 their filters, would that be an adequate -- would that
16 distance cause the kinds -- if it is hydrogen sulfide that
17 is causing those filters to turn, would that distance
18 account for that?

19 THE WITNESS: Let me maybe skip the answer on
20 that and just go a little bit further.

21 COMMISSIONER JACOBS: Okay. That's fine.

22 THE WITNESS: One of the filters that I looked
23 at out in the hall -- after she testified, she brought the
24 filter out, and I stopped her in the hall and I asked the
25 lady if I could see them.

1 I took a look at those filters. And these were
2 very tightly-wound fiber filters that she had removed from
3 her system, and they had a grayish tinge to them. What it
4 could be is in this conversion process when you put the
5 chlorine into the hydrogen sulfide you get elemental
6 sulfur. This elemental sulfur is very, very fine-grained.
7 So fine that normal sand-type filters really don't take it
8 out; it just passes through. But this filter that she had
9 was a very tightly-wound fiber filter, almost like the
10 kind that we use when we're doing studies to see if a
11 system is under the influence of surface water, a
12 one-micron filter.

13 And that very well could be taking out sulfur.
14 And that could be what she is seeing in these prefilters.
15 It might be the elemental sulfur. You would almost have
16 to take this thing apart and analyze what is in it to
17 really answer that question.

18 COMMISSIONER JACOBS: Thank you.

19 COMMISSIONER JABER: With the standards that DEP
20 has today, what is it you can require this utility to do
21 to correct the problem?

22 THE WITNESS: Almost nothing.

23 COMMISSIONER JABER: Okay. And if the PSC has
24 to follow DEP standards in its day-to-day business in
25 regulating utilities, what is it we can require the

1 utility to do?

2 THE WITNESS: I think as a government agency we
3 are all just about stuck. I really do. We have odor
4 standards. We have taste standards. We have odor
5 standards and we have taste standards, but the process of
6 chlorinating that hydrogen sulfide and the conversion
7 process wipes out that odor and taste.

8 So at the point where we require the utility to
9 do their monitoring, they don't have any hydrogen sulfide.
10 We would have to establish a standard that is based on raw
11 water, and then we would have to dictate a treatment
12 technique for removing it. That is not normal. That is
13 not normally the way we do it, regulate something. So
14 this would be blazing a whole new trail. That's why when
15 you asked me about that -- I think it would be years.

16 Because we would, of course, have to go through
17 the public hearing routine. And I just feel certain that
18 there would be all kinds of fights from utilities, both
19 public and private, to any standards on that.

20 MR. DETERDING: May I continue?

21 COMMISSIONER CLARK: Yes, you may continue.

22 Although, how do you have any questions?

23 MR. DETERDING: You certainly helped a great
24 deal, I must say. Unfortunately, I still have a few.

25 BY MR. DETERDING:

1 Q Mr. LeRoy, you were asked about whether or not
2 this, what Aloha was doing was being effective in
3 eliminating this problem. Do you have a suggestion of
4 something else Aloha should be doing to eliminate this
5 problem?

6 A Well, I guess go back to the Commissioner's
7 question, too. I'm not sure I can make any suggestion.
8 Mr. Porter has the right solution, and that is the packed
9 tower aeration. The problem is that we see two extremes
10 here. We see customers who aren't willing to pay the
11 money, and we see a utility that wants rates. They want a
12 guarantee for rates before they proceed.

13 And as long as that is happening, I'm not sure I
14 can suggest anything to anybody. The solution is there.
15 It is not beyond the technology of the state of the art to
16 take care of this problem.

17 Q From the utility's perspective, that is the
18 solution in your mind.

19 A I think so, yes.

20 Q And by "from the utility's perspective," I mean
21 what the utility can do or should do, if it is going --

22 A The packed tower aeration.

23 Q Yes.

24 A Yes, sir.

25 Q Exhibit 3, I believe it is, the memos and DEP --

1 A I have never seen these memos before that are on
2 the top of this. So if you want me to answer to them, I'm
3 going to have to read them.

4 Q I don't have any desire to ask you about the
5 memos.

6 You indicated that the addresses tested were
7 primarily selected by Representative Fasano?

8 A I didn't remember the exact mix. We got some of
9 the addresses from Representative Fasano, and we got some
10 of the addresses from our Tampa office. And they
11 represented people that complained to them.

12 Q So, in other words, this isn't at all
13 representative of the situation in Aloha's system?

14 A No, it wasn't meant to be.

15 Q In fact, it is the worst of Aloha's system?

16 A Yes. Again, I go back. We were looking for a
17 method that we could refer customers to that might help
18 them. We weren't looking to find people that didn't have
19 a problem. They wouldn't fit into the study.

20 Q And, again, not only was this not the purpose of
21 the report to determine compliance by Aloha, but the
22 testing was of all the wrong things and all the wrong
23 places sort of thing.

24 A From a compliance standpoint, yes.

25 Q I think during, at some point in your

1 questioning there was some question about whether you
2 vouched for everything in the report. Do you vouch for
3 everything in this report?

4 A Well, like I said, I took the lab sheets, and I
5 put them in, and I proofread what I got off the lab
6 sheets. So I think that I've got everything from the lab
7 sheets accurately into the report.

8 Q But you don't know whether the circumstances
9 under which the sampling was taken, in fact, there was no
10 chain of custody documents prepared for the sampling side
11 of this, and so forth, correct?

12 A Right. And there was quite a bit of discussion
13 over that one home that had a softener, but didn't appear
14 to have any softening, Florida Rural Water saw that when
15 they took the sample and told the person about it, and
16 they just hadn't recharged it in a long time.

17 Q And this was also a situation where there was
18 somebody suggesting that there was no chlorine in the
19 water entering the home, are you aware of that?

20 A I am. I'm not necessarily concerned about that.
21 Most of the ones when you look at it, the vast majority of
22 them did. And because one, or two, or three at the entry
23 point to the home didn't have chlorine, I wouldn't
24 necessarily -- you know, in Europe, the Europeans don't
25 even believe in chlorinating and having residuals. So

1 just because there was a home that didn't have a residual
2 in it, personally I don't feel that is anything to get too
3 excited about.

4 Q Well, in fact, in that situation did you hear
5 the testimony that when it was checked into that DEP
6 informed Aloha, and someone from Aloha went right out to
7 that site and found that they were, in fact, testing for
8 chlorine after a charcoal filter system?

9 A No, I didn't hear that. We had attempted in
10 designing this to make sure that that cold water tap was
11 before any. And, as I mentioned earlier, we had tried to,
12 when we did identify that the cold water tap we were going
13 to pull that point of entry sample from was after a
14 filter, we installed additional taps so we could get clean
15 samples. No, I didn't hear that testimony, and I wasn't
16 aware of it.

17 Q And that would be an incorrect place to check?

18 A Yes. To get our point of entry sample, if it
19 were after the filter, that would not have been what we
20 had wanted.

21 Q Would you agree that Aloha's hydrogen sulfide
22 levels for source waters are typical for this area?

23 A I'm not too sure. I really don't know. I'm not
24 sure I can answer that question. The problem with
25 hydrogen sulfide is that it fluctuates so much. If you

1 were to go out in a 30-day period and measure hydrogen
2 sulfide at a given well every day, I would venture to say
3 you would have very fluctuating levels. So I'm not sure
4 what is typical, in answer to your question.

5 Q Given that what we are talking about here is
6 copper corrosion as causing this black water, would you
7 agree that replacing of in-home water pipe, copper water
8 pipe with PVC would solve it?

9 A It would eliminate the copper corrosion. I
10 haven't gone out and done a survey of Aloha. But I
11 understand from Mr. Porter's testimony earlier that there
12 is no copper in their distribution system. And if they
13 have PVC throughout their distribution system, and I would
14 also say no iron. Iron can cause the same condition. If
15 it is all PVC, and the first copper is occurring at the
16 home, eliminating it from the home obviously would take
17 care of it. The copper problem, not the odor problem.

18 COMMISSIONER JACOBS: Excuse me, I thought it
19 was testified that if you do the chlorination, you don't
20 have the odor.

21 THE WITNESS: That is right.

22 COMMISSIONER JACOBS: So an odor would only
23 occur once it gets transferred back.

24 THE WITNESS: Right. But even though you have a
25 home that is done all in plastic, your hot water heater

1 can still regenerate hydrogen sulfide, and you still get
2 the odor. You won't get the corrosion product, because
3 you have taken the copper out of there, but you will get
4 the odor.

5 COMMISSIONER CLARK: Anything else, Mr.
6 Deterding?

7 MR. DETERDING: Yes, I have a few more.

8 BY MR. DETERDING:

9 Q You talked about Pinellas County a little bit,
10 isn't it true that they utilize the same polymer for their
11 corrosion control program as Aloha?

12 A I don't know. Most of these polymers are
13 proprietary chemicals. And I don't know if they are using
14 the same company or not.

15 Q An orthopolyphosphate, though?

16 A That is a general generic name for it. But each
17 individual manufacturer of these things usually works with
18 the individual utility in setting up dosages and such.
19 And so I don't know if it is the same.

20 Q But I just meant that type of corrosion control
21 program as opposed to, say, pH adjustment or some other.

22 A My understanding is Pinellas County does two
23 things, that they aerate and they use a polyphosphate.

24 Q And you mentioned the aeration, isn't it true
25 that they recently installed packed tower aeration very

1 similar to what Mr. Porter has in his report?

2 A I don't know if it is recent or not. I do know
3 they have installed it. I don't know when.

4 Q The DEP has approved Aloha's use of this
5 corrosion inhibitor as its method for controlling copper
6 corrosion in its system, correct?

7 A To the best of my knowledge. In Tallahassee I
8 don't work with the individual utilities as such. But to
9 the best of my knowledge, yes, the permitting engineer for
10 DEP in Tampa has approved a polyorthophosphate.

11 Q And if that is the case, and the purpose is to
12 control corrosion, we talked about the softeners removing
13 the thing with which it reacts, with which this
14 orthopolyphosphate reacts, correct? They do remove the
15 calcium?

16 A That is true.

17 Q And, therefore, it cannot do its job within that
18 home?

19 A That's correct.

20 Q Regardless of whether there is existing
21 corrosion, it can't do what it is supposed to do?

22 A That's correct. And that is one of the reasons
23 from the lead and copper rule standpoint, we do not have
24 the utility's sample from homes that have water softeners,
25 because we can't predict what kind of corrosion will be

1 found, and we don't think they are typical.

2 Q So while you say in this conclusion that this
3 water can be -- absence or presence of water conditioning
4 units appears to have no effect on the generation of
5 hydrogen sulfide, it does have some effect on the reaction
6 with the copper pipes?

7 A Again, I'm not sure what relationship that would
8 have to the sulfide reacting with the copper. For a
9 general corrosion process that the copper rule is after,
10 then it is, it is inhibited by having the calcium removed.
11 I'm not sure when you throw in something extra like the
12 sulfide, what that has to do with it.

13 COMMISSIONER CLARK: Staff, are you going to
14 have any redirect?

15 MR. JAEGER: I have three small areas.
16 Hopefully it won't take but a short while.

17 MR. DETERDING: That is all I have. Thank you.

18 COMMISSIONER CLARK: Go ahead, staff.

19 REDIRECT EXAMINATION

20 BY MR. JAEGER:

21 Q I think you have already touched on this. But
22 you were talking a lot about the calcium removal. Do
23 water softeners also remove the chlorine?

24 A The what?

25 Q The chlorine.

1 A The normal water softener, an ion exchange unit
2 does not. But from the testimony I heard yesterday, a lot
3 of people have put in activated carbon filters. Activated
4 carbon will strip the chlorine out, yes.

5 Q A lot of these tables, it looks like there is
6 chlorine, and then it goes to zero. And it just says
7 softener. But that may be because of the charcoal filter
8 and not the --

9 A Yes, it very well could be. A z-like (phonetic)
10 softener does not normally pull the chlorine out, as such,
11 but the carbon filter will.

12 Q Could you go to Page 5 of the exhibit. And what
13 I'm looking at is Subparagraph 3, the next to the last
14 sentence, it says upon further review it was determined
15 that they probably will not need to upgrade to meet Phase
16 One trihalomethanes.

17 That is what you have been agreeing with. Right
18 now the THMs are at 80, and they will probably be able to
19 meet that?

20 A That's correct.

21 Q But the sentence throws me. It says, "Not only
22 that, even if they did, the packed tower aeration would
23 probably not be the engineering solution of choice."
24 Where does --

25 A I didn't write this memo. But I would agree

1 that for THMs, packed tower would probably not be the
2 solution of choice. THMs normally form slowly out in the
3 distribution system. That is why one of the requirements
4 that we have in our rule is that the utility take a THM
5 sample at one of the furthest point out with the longest
6 retention time, because that is where it is going to occur
7 at strongest.

8 Now, packed tower, if they had some type of a
9 holding tank where they were able to hold it for some
10 period while it developed and then ran it through packed
11 tower, it would certainly have an effect, because the THM
12 is a volatile organic.

13 But normally when it is leaving the plant, and
14 you do whatever you do, you have got the organic matter in
15 there, you have got the chlorine in there, and you send it
16 out into the line, it hasn't turned into one of the four
17 trihalomethanes.

18 Q So your read that sentence for THMs, not for
19 black water or getting rid of the copper sulfide?

20 A Well, again, I haven't read this whole memo.
21 But taking that one sentence and just looking at it, it
22 sounds to me like the author was talking about packed
23 tower for THM.

24 Q Go to Page 6, if you would.

25 A Okay.

1 Q I believe that talks about a commercial
2 facility?

3 A Where are you at on that?

4 Q I'm sorry, Subparagraph 4, and they are talking
5 about, I think, flushing. And it says, "Aloha responded
6 quick and flushed the pipe repeatedly on several
7 subsequent days. However, the problem persists and the
8 complaints continue." Were you familiar with this
9 complaint at all?

10 A No, I wasn't. I have never heard of this one.
11 I see my name is on there, but I don't recall having this
12 sent to me. But I didn't recall this memo. But I guess
13 at my age I start to forget things. It is almost half a
14 year ago.

15 MR. JAEGER: I have no further questions,
16 Commissioner Clark.

17 COMMISSIONER CLARK: Commissioner Jacobs has
18 one question, and then I think we can excuse you.

19 COMMISSIONER JACOBS: This goes to the Duval
20 situation. It is my understanding that the provision that
21 was enacted there was not countywide. Was it utility
22 specific or --

23 THE WITNESS: My understanding was that it was
24 countywide. But now that you mention it, I can't answer
25 your question directly. Because the Jacksonville utility

1 there covers a good portion of the county, and it very
2 could have been that it was a utility ordinance. I know
3 Miami-Dade utility puts out a lot of ordinances down
4 there. I'm not sure I can answer that question. I don't
5 know.

6 COMMISSIONER CLARK: You mean it would have been
7 the Jacksonville Electric Authority, or it would have been
8 a governmental entity, not the utility putting out an
9 ordinance?

10 THE WITNESS: Well, I'm not too sure how the
11 Jacksonville utility is constituted. Miami/Dade Water and
12 Sewer Authority is a governmental entity. And I know that
13 they crank out ordinances all the time that effect people
14 that are connected to them.

15 COMMISSIONER JACOBS: My interest was whether or
16 not there was some perceived need to have a countywide, or
17 whether or not the problem existed only in certain areas.
18 You are not familiar with that.

19 THE WITNESS: My understanding was that it was a
20 countywide ordinance. But when you ask me that question
21 directly, I really don't know whether it was the major
22 utility there specific, or whether it is with countywide.
23 I had made the assumption that it was countywide.

24 MR. JAEGER: Commissioner Clark, before we end,
25 something I did want to do, I think he has authenticated

1 Exhibit 3. And I think he has now made it possible to
2 enter that exhibit into evidence. And I would move the
3 exhibit into evidence at this time.

4 MR. WHARTON: It's funny, because I was going to
5 ask now if we still needed it. And the fact that someone
6 is still trying to put it into evidence must mean there is
7 something in there that we haven't heard. And that is
8 still a red flag to me. So I --

9 COMMISSIONER CLARK: I am still going to reserve
10 judgment. But I will be candid, I think there was a good
11 deal of testimony that goes to the basis on which the
12 study was put together, and the compilation of it that I
13 tend to -- if you ask me now, I would admit it.

14 MR. McLEAN: So move.

15 COMMISSIONER CLARK: But I will allow -- I mean,
16 quite frankly, I understand your concern about opinion
17 testimony and everything. But this was done, a study here
18 in the area.

19 MR. WHARTON: But we just talked about a perfect
20 example, a cover memo he hasn't seen where somebody said
21 packed tower aeration isn't going to fix the problem, at
22 least that was the way it was interpreted.

23 MR. McLEAN: Well, that was one problem with it
24 I was going to fix. Pardon for talking over you there.

25 COMMISSIONER CLARK: I'm not going to admit it

1 right now. I'm still going to reserve ruling on it.

2 MR. McLEAN: Let's brief it. One item I want to
3 address in my brief is whether it is severable. Because
4 part of it is not a study, part of it is not by this
5 author.

6 COMMISSIONER CLARK: That's right. It seems to
7 me there may be portions of it that are admissible and
8 some may not be.

9 MR. WHARTON: Oh, I think we would probably
10 stipulate to its admission to the extent any part of it
11 has been proved up or formed the basis of an expert's
12 opinion.

13 COMMISSIONER CLARK: Well, then it seems like we
14 have the basis to admit at least some of it that we think
15 is relevant. And we are not going to do that now.

16 MR. WHARTON: I'm okay with that, to admit it
17 now with that understanding.

18 COMMISSIONER CLARK: I would like you to go
19 through -- the attorneys can meet and decide what is going
20 to be admissible and agree to the admission. There are no
21 further questions of --

22 MR. DETERDING: That is what I wanted to ask. I
23 have one more question I wanted to ask Mr. LeRoy that was
24 brought up by something that Ralph brought up for the
25 first time, and in reference to the memo and that issue.

1 COMMISSIONER CLARK: Go ahead.

2 RE CROSS EXAMINATION

3 BY MR. DETERDING:

4 Q You indicated about the sentence about packed
5 tower not being the indicated solution for THM removal,
6 isn't it true in a situation such as Aloha's where you
7 have hydrogen sulfide that packed tower's removal of that
8 hydrogen sulfide therefore reduces the need for chlorine
9 and therefore has a positive impact on THM reduction, as
10 well?

11 A That would certainly be true. There is a
12 chlorine demand that has to be considered by the utility.
13 Hydrogen sulfide has a very high chlorine demand in
14 killing it. And I guess from that point of view I do have
15 to somewhat lean toward what you are saying. One of the
16 concerns that I would have is the fact that I mentioned
17 earlier, I believe that if we did studies testing every
18 day for hydrogen sulfide we would find wide fluctuation.

19 And I think that it is very difficult for a
20 utility to control the chlorine input into a system when
21 they have their contaminant fluctuating. Are they going
22 to chlorinate for the peak, or are they going to for
23 chlorinate mean, or just what. If they chlorinate for the
24 mean to get rid of it, they are going to miss some peaks,
25 and some hydrogen sulfide will slip through. And other

1 times they are going to have some very high levels of
2 chlorine slip through.

3 So I will think -- from what you have just said,
4 yes, I'm reconsidering, because there would be no way they
5 can control their chlorine accurately day in and day out,
6 and they could end up inadvertently increasing their THMs.

7 COMMISSIONER CLARK: So it wouldn't be a result
8 of the packed tower, but its secondary effect of
9 eliminating the need for large amounts of chlorine help
10 the THM?

11 THE WITNESS: It would certainly cut down on the
12 quantity of chlorine. I would have to look it up. But as
13 I recall, it is something like eight pounds of chlorine
14 per pound of hydrogen sulfide to remove it. It is a very
15 high number.

16 COMMISSIONER CLARK: Anything else?

17 MR. DETERDING: That is it.

18 COMMISSIONER CLARK: Mr. McLean, did you want to
19 do any follow-up?

20 MR. McLEAN: A very brief question.

21 RECROSS EXAMINATION

22 BY MR. McLEAN:

23 Q Commissioner Clark asked you a question about
24 removal of hydrogen sulfide with a filter, do you recall
25 that?

1 A Yes.

2 Q The substance of your answer, I want to
3 interpret your answer and make sure I have the right
4 impression, that you can't remove a gas with a filter, is
5 that correct, a dissolved gas?

6 A Well, when you say a filter, being in the
7 commercial water regulating business, a filter to me is a
8 sand type of filter that you run the water through.
9 Certainly there -- I'm aware of small point-of-use
10 oxidizing filters that have a medium in there which is
11 impregnated with some type of oxidizing agent that is used
12 for iron and manganese, to oxidize it and then filter it
13 out. Probably could do something similar with hydrogen
14 sulfide. But I can't speak to that. Because regulating
15 large water systems, we don't get into small point-of-use
16 devices. But, yes, I would imagine there are small
17 devices that will.

18 MR. McLEAN: Is it your testimony that there are
19 no large devices that do the same thing?

20 THE WITNESS: Oh, I hate to say no. In this age
21 of technology when things are just skyrocketing. The
22 computer I bought six months ago is already out of date.
23 I hate to tell you that, no, there aren't. I'm not aware
24 of commercial utility-sized filters?

25 MR. DETERDING: Mr. LeRoy, I would hate for you

1 to tell me no, too. Why don't we leave it at that. That
2 raises another question.

3 COMMISSIONER CLARK: No.

4 MR. WHARTON: It is a critical issue,
5 Commissioner Clark.

6 MR. McLEAN: That is why I abandoned it, because
7 it is a critical issue and there are other better
8 witnesses --

9 COMMISSIONER CLARK: I think he answered the
10 question. He is not aware of any.

11 Mr. LeRoy, thank you for being here. You are
12 excused.

13 MR. WHARTON: Commissioner Clark, a quick matter
14 to expedite the continuation.

15 Since Mr. McLean had no questions, and since the
16 staff and the Commissioner can assumably ask Mr. Watford
17 anything they want when he does rebuttal, can we stip in
18 his direct now then he won't have to go twice the next
19 time we meet?

20 COMMISSIONER CLARK: We have already answered
21 that question, the Commissioners have questions for Mr.
22 Watford.

23 MR. WHARTON: But I thought those questions can
24 be asked after rebuttal, but maybe that timing will not be
25 good. See, he will testify twice when we meet again, that

1 was my only point.

2 COMMISSIONER CLARK: Well, let me just indicate
3 this, that we have -- I would like to take about a
4 ten-minute break, and then go for another 45 minutes. And
5 I think we can take up his direct and -- do we want to
6 take up his rebuttal at the same time?

7 MR. McLEAN: No.

8 MR. WHARTON: I don't think so.

9 COMMISSIONER CLARK: All right. We will take up
10 his direct. We are going to have to look for another
11 date. We have come up with April 25th for another date.
12 I think it is a Tuesday. We will hold it up in
13 Tallahassee, but we will make efforts to accommodate some
14 sort of providing for it down here so you can hear what is
15 going on from some centrally-located area.

16 MR. JAEGER: What time on April 25th -- I'm
17 sorry, Ms. Clark.

18 COMMISSIONER CLARK: I didn't set a time. We
19 would start at 9:30 in Tallahassee on the 25th.

20 All right. We are going to break for 10 minutes
21 and talk about it when we come back. We will be back at
22 3:15.

23 (Recess.)

24 COMMISSIONER CLARK: I think we are ready.
25 Mr. Watford, I think you are next.

1 Mr. Deterding.

2 - - - - -

3 STEPHEN G. WATFORD

4 was called as a witness on behalf of Aloha Utilities, Inc.
5 and, having been duly sworn, testified as follows:

6 DIRECT EXAMINATION

7 BY MR. DETERDING:

8 Q Mr. Watford, please state your name and
9 employment address for the record.

10 A My name is Stephen Watford, 2514 Aloha Place,
11 Holiday, Florida 34691.

12 Q Have you been sworn, by the way?

13 A Yes, I have.

14 Q Thank you. And you are employed by Aloha
15 Utilities, Inc.?

16 A That's correct, I'm the President.

17 Q Did you prepare in conjunction with my office a
18 document referred to as the prefiled direct testimony of
19 Stephen G. Watford?

20 A Yes.

21 Q Consisting of 14 pages, correct?

22 A Plus exhibits, yes.

23 Q If I asked you those question today, would your
24 answers be the same?

25 A With some minor changes, yes.

1 Q Okay. Please give us those changes.

2 A Okay. On Page 2, Line 6, at the end of the line
3 where it says, "Almost three years," that needs to be
4 changed to three and a half years.

5 On Page 2, line -- well, the end of Line 13 an
6 the beginning of Line 14 where it says, "and to," wrapping
7 around to Line 14, that should be stricken, and that
8 should be, "from the DEP."

9 The next one should be on Page 5, Line 21, and
10 at the beginning of Line 21 it should be the level of --
11 actually we should strike "hydrogen sulfide" and put "the
12 level of hydrogen sulfide in the naturally occurring
13 constituent." And, I'm sorry, back up at the top of
14 Page 5 --

15 COMMISSIONER CLARK: Hang on a minute. I don't
16 think that reads right. What should that sentence read?

17 MR. DETERDING: Are you talking about Line 21 or
18 23, Mr. Watford?

19 THE WITNESS: I'm sorry, did I say 21?

20 MR. DETERDING: Yes.

21 THE WITNESS: I'm sorry. On 23, the level of
22 hydrogen sulfide in Aloha's -- well, let me see. I had
23 that annotated wrong here. I'm sorry, at the beginning of
24 Line 22, that should be, "And Aloha's levels of hydrogen
25 sulfide are by no means unusual for water systems within

1 the State of Florida."

2 COMMISSIONER CLARK: So there is no change to
3 that?

4 THE WITNESS: No, there is not. I'm sorry.
5 Back up at the top of Page 5, Line 2, the end of the
6 sentence there that now says, "from last summer," it
7 should be, "from the summer of 1998." On that same line,
8 we believe that those improvements -- we need to insert
9 "would" ahead of "help".

10 Page 7, Line 4, at the end of the line, "and
11 keeping record," should be "keeping records," plural, of
12 customer complaints.

13 On Page 9, the line starting on Line 20, and
14 going to Line 21, it should read, "most utilities in
15 Florida were above the applicable action level of the lead
16 and copper rule and," then pick up "were," already on 21,
17 insert, "therefore," required to implement corrosion
18 control after the first round of testing.

19 On Page 10, Line 24, the first word two should
20 be three.

21 MR. JAEGER: I'm sorry, where was that last
22 correction?

23 THE WITNESS: On Page 10, Line 24 the first word
24 two should be three.

25 On Page 12, Line 21, after the hearing of the

1 reuse case should be approximately three and a half years
2 ago, strike "over two and a half years ago."

3 Now, on Page 13, Line 14, certainly the
4 Commission's visit revealed that as of two summers ago
5 there were still some customers, strike "receiving,"
6 insert, "experiencing," some copper sulfide in a few
7 homes.

8 The next sentence, "we at Aloha still believe
9 that the total number of the homes experiencing this
10 copper sulfide problem is," strike "less", is only a
11 fraction of the percent of total customers served."

12 The same page, beginning at Line 23, insert
13 ahead of that line to a level such that is unaffected.

14 Page 14, Line 9, a close after over "four"
15 instead of "three." Strike three. And that's it.

16 I'm sorry, there was also a page in the exhibit
17 that was out of order. Do the exhibits now, as well?

18 Q Yes, go ahead.

19 A What is reflected as Page 7, which was a press
20 release by Aloha concerning the survey, I believe should
21 be part or the last page of Exhibit SGW-4, I think.

22 Q That Page 7 was in SGW-2, as submitted? It was
23 Page 7 of SGW-2?

24 A Yes.

25 Q And it should be page --

1 A It could be Page 1, or whatever, of SGW-4.

2 Q Let's do it the easy way, Page 5 of SGW-4.

3 A There you go.

4 Q Along those lines, did you cause to be prepared
5 or put together this group of exhibits SGW-1, SGW-2,
6 SGW-3, and SGW-4 as part of your direct testimony?

7 A Yes, I did.

8 Q Other than that one that you mentioned, that one
9 page, do you have any other changes to make to those
10 exhibits at this time?

11 A No, I don't. I didn't believe so.

12 MR. DETERDING: I request that Mr. Watford's
13 prefiled direct testimony be inserted into the record as
14 though read.

15 COMMISSIONER CLARK: It will be inserted in the
16 record as though read.

17 MR. DETERDING: And that SGW-1 through 4 be
18 marked.

19 COMMISSIONER CLARK: It will be marked as
20 Exhibit 15, Composite Exhibit 15.

21 (Exhibit 15 marked for identification.)

22

23

24

25

1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2 DOCKET NO. 960545-WS

3 WATER QUALITY INVESTIGATION OF ALOHA UTILITIES, INC

4 PRE-FILED DIRECT TESTIMONY OF STEPHEN G. WATFORD

5

6 Q. Please state your name and employment address.

7 A. Stephen G. Watford, Aloha Utilities, Inc., 2514 Aloha Place, Holiday, Florida 34691.

8 Q. By whom are you employed?

9 A. I am employed as the President of Aloha Utilities, Inc.

10 Q. How long have you served in that capacity, and what are your duties as the President of
11 Aloha Utilities, Inc.?12 A. I have served Aloha in one capacity or another for over 20 years. As the President of Aloha,
13 I serve as the chief officer overseeing day-to-day operations, accounting, customer service,
14 billing collections and administration, as well as negotiations of contracts and agreements,
15 financing and planning.

16 Q. What is the purpose of your direct testimony in this proceeding?

17 A. To update the Florida Public Service Commission on what Aloha has done to ensure that we
18 are providing a high quality of water service to our customers and to show the Commission
19 we are providing an excellent quality of service overall.20 Q. Are you familiar with the Commission's Order No. PSC-97-0280-FOF-WS issued in March
21 of 1997?22 A. Yes, I am. That Commission Order raises several questions about the quality of water
23 service provided by Aloha and it is my intention to try and demonstrate to the Commission
24 that Aloha is providing excellent quality of water service and that it has taken all reasonable
25 steps in order to improve the quality of water service provided to its customers. I also want

1 to show the Commission what we at Aloha have done since the issuance of that Order to
2 correct any problems that did exist and/or to further demonstrate to the Commission that
3 Aloha is and has been doing the right things, and all it can do to ensure that the customers
4 are receiving high quality of service from their water Utility.

5 Q. Please address the issue of corrosion control and copper sulfide.

6 A. As the Commission will recall, several customers testified at the hearings almost three years
7 ago that they were receiving black residue in their water at times and they believed (and
8 possibly even the Commissioners believed), that this was a result of something which Aloha
9 either was doing incorrectly, or failing to do. After extensive study by both Aloha, its
10 engineer, the Florida DEP, and the Commission's own engineers, it was conclusively
11 established that the black residue which the customers were experiencing, was the result of
12 a reaction between their copper pipes and hydrogen sulfide which naturally occurs in Aloha's
13 and most other utilities' water in Florida. We provided information to the Commission and
14 to DEP to demonstrate that the Utility was in compliance with all applicable standards
15 related to this problem and that the Utility was continuing, at the time of the last hearing, its
16 efforts to reduce the corrosivity of the Utility's water, which was the only factor within the
17 Utility's control that could have contributed to the occurrence of copper sulfide in some
18 customers' homes. While this problem was not widespread, it was significant enough to
19 raise concerns by Aloha, the DEP, and the PSC.

20 In keeping with the Utility's compliance with the Lead and Copper Rule, the Utility began
21 utilizing a corrosion inhibitor injected into the Utility's water in order to help resolve this
22 problem. We began this additional treatment process in early 1996. We have now optimized
23 the utilization of that corrosion inhibitor as of August 11, 1998, and our corrosion levels as
24 measured by required DEP testing now indicate that the Utility's corrosivity is below the
25 required action levels. We have recently received correspondence from DEP that states that

1 we are now allowed to reduce the frequency of our monitoring under the Lead and Copper
2 Rule because of the successful results that we have received in our corrosion control
3 program, and as such we are now going to reduce our monitoring to once yearly. In fact, as
4 of the most recent data we have, our corrosion level is below that experienced currently by
5 Pasco County, which I note strictly for the purposes of comparison.

6 It should also be noted that there are several other factors that contribute to the occurrence
7 of copper sulfide in a customer's water. Among the most important of these is the use of
8 home treatment units, which many of Aloha's customers were using and continue to utilize.
9 These home treatment units strip off the corrosion inhibitor which Aloha is injecting into the
10 water and also strip off chlorine. In addition, they change the pH of the water delivered by
11 Aloha. Each of these factors contributes to corrosivity of the water and the likelihood that
12 copper sulfide will be present in the water. As I believe we have noted previously, the EPA
13 and the DEP require testing for corrosivity under the Lead and Copper Rule and do not even
14 allow the utilization of homes with home treatment units for testing of these factors, mainly
15 because of the effects of these home treatment units on the ability of the Utility to treat and
16 provide water which meets these corrosivity requirements.

17 In addition to the scientific evidence demonstrating that the occurrence of copper sulfide in
18 some customers' water was the cause of the black residue complained of by some customers,
19 we also provided the Commission a copy of a University of Colorado study dealing with this
20 issue. This study has been subjected to extensive peer review and has now been published
21 in the Volume 90, July 1998 edition of The Journal of the American Water Works
22 Association. A copy of this article is attached as **Exhibit SGW-1**. This article clearly
23 demonstrates that the occurrence of copper sulfide in drinking water is relatively common
24 and can occur in any system where hydrogen sulfide exists, as it does in most Florida ground
25 water. This is the first scientific study and the first significant article on the subject which

1 I have seen.

2 It is certainly possible that this problem which some of the customers were experiencing, is
3 still being experienced by them even though we have optimized our corrosion control
4 program and now show corrosion levels well below the action levels required by the
5 environmental regulatory authorities. Before and after the last Order, the Commission, the
6 DEP and our engineer, all worked to try and find if there were other alternatives available
7 to Aloha to help reduce the copper sulfide formation which some of the customers had noted.
8 Among other things, adjustment of the pH of the water was suggested as a possible
9 alternative to explore. Mr. David Porter, P.E. as part of his analysis of potential solutions,
10 prepared an extensive engineering study dated June of 1997 which was submitted to the
11 Commission and which Mr. Porter is sponsoring in this proceeding. Mr. Porter further
12 showed the Commission staff that pH adjustment was not a viable alternative available to
13 the Utility to further help in the corrosion control program and is now further supported by
14 the findings of the study published in the AWWA Journal article (SGW-1). His study
15 submitted in June of 1997 did provide analysis which indicated some additional treatments
16 that would assist the Utility in further reducing the likelihood of occurrence of copper
17 corrosion in customers' homes. While the Utility will within the next few years probably
18 have to do many (if not most) of the things recommended within Mr. Porter's report from
19 June of 1997, to do so prior to their being required by DEP and EPA regulations would
20 require an increase in rates of the customers prior to when those facilities were actually
21 required by new drinking water requirements. The Utility offered in the Summer of 1998
22 to undertake those improvements earlier than otherwise required in order to try to address
23 the concerns raised by the Commission and by some of the customers. The Commission in
24 its PAA Order PSC-99-0061-FOF-WS did not acknowledge that those improvements, should
25 be undertaken immediately. I am attaching hereto as **Exhibit SGW-2**, a copy of a letter from

1 our attorney to the PSC noting our willingness to move forward with those improvements
2 from last Summer. We believe that those improvements help with these corrosion concerns.
3 We have no new evidence about the number of homes that may be continuing to experience
4 such copper corrosion, however, our customer complaints on water quality in recent months
5 are down to lower levels than they have been in the last four years when we first began to
6 hear the customers complain of the black water residue. In addition, the scientific evidence
7 would indicate that the frequency of copper corrosion in customers' homes should be
8 reduced substantially as a result of our now having optimized our corrosion control program.
9 However, to the extent that the Commission or the customers still deem that further
10 improvements are needed, the only scientifically proven method to further reduce copper
11 corrosion, taste and odor concerns is to move forward with the construction of the new
12 treatment facilities that will be required at some time in the future in any case. We at Aloha
13 stand ready to begin construction of these additional treatment facilities, if that is the desire
14 of the Commission and the customers. While certainly such improvements will have a
15 significant rate impact, our current water rates are substantially lower than the great majority,
16 if not all, of the other Utilities within our immediate area.

17 Q. Was the issue of odor, which was also addressed in Commission Order No. PSC-97-0280-
18 FOF-WS reviewed by Aloha as well?

19 A. Yes. As we told the Commission at the last hearing, the only conceivable cause of the odor
20 complaints which a few of the customers noted, is the occurrence of hydrogen sulfide.
21 Hydrogen sulfide is the naturally occurring constituent in Florida water, and Aloha's levels
22 of hydrogen sulfide are by no means unusual for water systems within the State of Florida.
23 Aloha's water is by no means high for our area, or above-average for the state as a whole.
24 In fact, the last time we checked, our sulfate levels (the best indicators of hydrogen sulfide
25 levels) were lower than those contained in the water of Pasco County, the primary water

1 provider other than Aloha within our general geographic area.

2 Our proposal for plant improvements contained within Mr. Porter's study, (which are the
3 same as those proposed in our letter from the Summer of 1998), will certainly help in
4 reducing the level of hydrogen sulfide through the implementation of packed tower aeration
5 facilities. This reduction of hydrogen sulfide will certainly occur once those facilities begin
6 to be placed in service in the next three to six years. It will be expensive to undertake these
7 improvements in major part because of the required centralization of treatment facilities, and
8 therefore it is not our intention to undertake these improvements until required by other
9 environmental regulatory requirements or by the Commission, as we have previously offered
10 to do. Because of the resulting rate increase, the Commission noted in their PAA Order that
11 they did not believe it was appropriate at this time to direct the Utility to make those
12 improvements now. Aloha believes that this is the only thing that we can do at this time to
13 further address the copper corrosion, taste and odor concerns that the customers have raised.
14 If this Commission feels it is necessary to address those at this time, Aloha stands ready to
15 proceed with that construction. Certainly the construction will eliminate the great majority,
16 if not all, of the taste and odor complaints and based upon the reduction in sulfides that we
17 know will occur, we feel confident, and logic suggests, that the copper corrosion will also
18 be substantially reduced.

19 Q. Were there unresolved issues related to pressure from the last full Order over two years ago?

20 A. No, I do not believe so. I believe we demonstrated to the Commission and its staffs'
21 satisfaction that the Utility was providing water to all of its customers well above the
22 required pressure levels at all extremities of the system. Certainly, every pressure test done
23 by us, or anyone else, has concluded that is the case.

24 Q. The Commission's Order from early 1997 also raised some concerns about Aloha's customer
25 relations and its record keeping related to customer complaints. Do you have any further

1 evidence to provide to the Commission at this time concerning that issue?

2 A. Yes. First I would like to address the issue of record-keeping concerning customer
3 complaints. As noted during the last hearing, Aloha was and continues to be in full
4 compliance with the applicable Commission Rules related to logging and keeping record of
5 customer complaints. We provided as a late-filed exhibit from that prior hearing, some
6 information accumulated by me on that issue. We have further reviewed our policies and
7 procedures to ensure that we continue to be in full compliance with all applicable
8 requirements related to record keeping on customer complaints, and I have verified that in
9 fact we are in such full compliance. Attached hereto as **Exhibit SGW-3**, is a copy of the
10 information which I provided as part of late-filed Exhibit 24 from the prior hearing, which
11 I believe addresses this issue in somewhat more detail.

12 We have also taken additional measures to ensure that all customer inquiries and complaints
13 are properly processed and that all are addressed and that there is appropriate record-keeping.
14 Since the last hearing, we have added a new computer system that allows us to track
15 customer complaints more effectively, efficiently and precisely. We are also able to trace
16 much more quickly and readily the results of our investigation of all customer complaints
17 in the data base and to program the computer to recognize frequently occurring complaints,
18 or complaints within a given area so that we can recognize trends and possible problems
19 more quickly.

20 In addition, we made a change to make sure that all water quality complaints go through a
21 single customer service representative, once it is determined that that is the nature of the
22 complaint. In this way, no customers are left in a position of having talked to two or three
23 different people at different times, and possibly receive answers that seem, to the customer
24 at least, to have been different for the same problem.

25 Q. What about the issue of your staff's appropriately responding to customer concerns?

1 A. As noted above, we have reviewed our existing procedures and have incorporated some
2 additional procedures which we believe have substantially aided us in properly responding
3 to customer concerns. After the hearing at which some customers raised concern about the
4 way they were treated by Aloha's personnel, we have undertaken to discuss with all of our
5 staff members their responsibility to treat all customers with courtesy and dignity and to
6 ensure that all of their complaints are thoroughly checked out to determine what, if anything,
7 Aloha can do to resolve the problems. We have undertaken to have regular staff meetings
8 to discuss recurring customer concerns and problems and how to deal with them to ensure
9 that the customers receive a satisfactory answer, and that the problems are resolved to the
10 best of our ability.

11 We have also prepared an informational packet, put together by us, which has been reviewed
12 by both the DEP staff and the Commission staff for accuracy and that is provided to each and
13 every customer whose complaint is determined to be related to copper sulfide. This packet
14 includes extensive explanation and possible solutions that the customer can undertake to
15 alleviate the occurrence of copper sulfide within their home.

16 Since these problems are the result of factors beyond our point of delivery and beyond our
17 control, this was not something we were required to do. However, we want our customers
18 to be happy with their water service and do what we can to help them achieve that, even
19 when the problem is the customers' responsibility. We have certainly gone the extra mile
20 in our opinion in trying to assist those customers who have continuing problems, even
21 though many times these problems are caused by factors beyond Aloha's point of delivery
22 and, therefore, the area of Aloha's responsibility. We have done such things as agreed to
23 send people out to actually flush the customer's internal system, to attempt to assist some
24 customers who had experienced copper sulfide problems, as well as other measures which
25 we believe are above and beyond the call of duty. I have tried to ensure that any persons

1 who have a problem or question concerning the quality of service provided have those
2 problems resolved by our staff.

3 Q. Is Aloha currently in compliance with all water quality regulations imposed by the applicable
4 regulatory authorities?

5 A. Yes we are and we have been throughout the time that this docket has been open. There was
6 some suggestion that Aloha was out of compliance with the Lead and Copper Rule during
7 the early phases of this proceeding some three years ago. However, that is an inaccurate
8 statement. Aloha was not out of compliance with the Lead and Copper Rule. In fact, the
9 Lead and Copper Rule requires a Utility to test the water inside a customer's home to
10 determine if the lead and copper levels are above a certain point called an "action level." If
11 the test showed levels above the action level, a Utility is required to come up with a plan to
12 reduce the corrosivity of their water. If a Utility did this, they were considered to be in
13 compliance with the program. That is why the rule refers to it as an "action level" instead
14 of a "maximum contaminant level" or MCL. Aloha has been and still is in compliance with
15 the Lead and Copper Rule. We took immediate action once we determined that we were
16 above the action level, and have worked diligently to ensure a maximization of the benefits
17 of the corrosion control method which we have utilized, which is the injection of the
18 corrosion inhibitor. Pinellas County, as an example, is using the exact same method for its
19 corrosion control program. We have now optimized the level of injection of the corrosion
20 inhibitor and therefore, are below the action level for corrosivity. Most Utilities in Florida
21 were required to implement corrosion control after the first round of testing. I believe that
22 the Commission staff has fully verified this during their extensive investigation into the
23 various issues raised by the Commission Order in March of 1997 and since that time. Our
24 lead and copper corrosion program has worked effectively to reduce the corrosivity of our
25 water to below the required "action level." In fact, our system was deemed fully optimized

1 by the Florida Department of Environmental Protection on August 11, 1998. On June 28,
2 1999, the Florida Department of Environmental Protection granted us permission to go to
3 reduced monitoring on our lead and copper program due to the continual success our
4 program has demonstrated.

5 Q. The Utility was also criticized in the March 1997 Commission Order for its failure to have
6 undertaken an extensive study of the Utility's water quality for the past five years. How do
7 you respond to that criticism?

8 A. There was no reason for the Utility to undertake any extensive study at that time. While
9 there were certainly some water quality concerns raised by customers during the hearings,
10 the number of complaints prior to the initiation of this water quality proceeding in early
11 1996, were very few. The copper sulfide complaints were not identified, nor did they reach
12 a significant level until the end of 1995 and early 1996, right at the time this investigation
13 was begun. The Utility asked DEP for authorization to immediately begin injection of the
14 corrosion inhibitor to try and address these concerns right after the discovery of copper
15 sulfide in some customers' homes.

16 The scientific evidence has always demonstrated that this was the best course of action.
17 While several persons, including the customers and even the Commission and its staff at
18 times, have suggested that the Utility at least review other alternatives, our engineers as well
19 as the people at DEP have recognized throughout that we were pursuing the appropriate
20 course of action and the only one that we could reasonably undertake without a substantial
21 increase in rates.

22 David Porter, P.E. did perform the study for Aloha as required by the Commission to review
23 what could be done to improve water quality. That was submitted to the PSC approximately
24 two years ago. That report did conclude what we have been telling the Commission all along
25 about the reasonable alternatives that the Utility could undertake at this time to help in some

1 of these areas of concern raised by the customers. As noted in that report, such
2 improvements would also cause rates to increase. We have agreed to undertake these
3 improvements substantially sooner than is otherwise required, and we continue to take that
4 position now.

5 The staff of the Commission and DEP have performed extensive studies and analysis of
6 Aloha's water which I believe are unprecedented in the history of private water and sewer
7 Utilities regulated by the Florida Public Service Commission. The conclusions are still the
8 same as those which we asserted at the last hearing. That the Utility's corrosion control
9 program was the best method to try and address the concerns, and that the majority of the
10 problems are the result of factors inside the customers' homes (including the use of home
11 treatment units) which Aloha has no control over . As noted very specifically within the
12 Commission's own rules, Aloha's responsibilities end at the point of delivery as defined
13 within Rule 25-30.225(5) and 25-30.231, Florida Administrative Code. The Utility cannot
14 be placed in a position to try and maintain or address water quality beyond that point,
15 because of the customers' sole right and ability to determine the nature of facilities beyond
16 that point and to change the chemical makeup of the water through use of home treatment
17 facilities.

18 The only other thing that could be done are the plant improvements that we have outlined
19 in Mr. Porter's June 1997 study. We believe, to the extent that the Commission wishes the
20 Utility to take further measures to improve water quality, that these are the measures that
21 should be undertaken because they are the only measures that have been scientifically shown
22 by testing or by review of competent engineers to help in the areas of the customers'
23 complaints.

24 Q. Did the Commission require that Aloha undertake a Survey of Customer Satisfaction?

25 A. Yes, they did by Order No. PSC-97-1512-FOF-WS issued in the Fall of 1997. This action

1 by the Commission was unprecedented. However, Aloha went along with the Survey and
2 worked with the Commission and the customer representatives in drafting the appropriate
3 Survey questions and wording. However, the final decisions were made by the Commission
4 staff. After the Survey was responded to, we accumulated the results. Certainly the Survey
5 received a high level of response. However, as the Survey specifically noted on its face in
6 bold language, those people who found the water quality and service satisfactory were told
7 that they need not respond. As such, we felt that the analysis of the Survey results as
8 provided by the Commission staff to the press and the way in which they were described in
9 a later Order of the Commission were unfair to Aloha, because they did not compare the
10 Survey results to the total number of people surveyed. We provided the Commission with
11 our own analysis showing the way the Survey results should be characterized, and I am
12 attaching a copy of those letters to my testimony as **Exhibit SGW-4**.

13 Q. Did the number of Survey responses surprise you?

14 A. No. This was the first Survey of its kind issued by the Commission, so there is nothing to
15 compare it to. While some people have suggested that you could compare it to the response
16 to an extended area service questionnaire (which the Commission has undertaken in the
17 past), it is not in any way, shape, or form comparable to those type of surveys based upon
18 what I understand that those Surveys included. The Commission to my knowledge has never
19 before had a Utility undertake a Customer Satisfaction Survey, or even any kind of extensive
20 Survey like this one. Certainly the level of our customer complaints have been relatively
21 minor after the hearing of the reuse case over 2 ½ years ago. The level of complaints jump
22 at times around such events as the 1996 hearings, the Survey, the Commissioners' visit, or
23 the Commission's final action on these proceedings. However, in all, our customer
24 complaint level is very low at the present time. In fact, our water quality complaint level
25 for the last twelve months is lower than it has been in five years and is back to or below the

1 levels which existed prior to the filing of our reuse case with the Commission in 1995.

2 Q. Did members of the Commission actually visit the Utility's service area to review the quality
3 of water provided by Aloha.

4 A. Yes. In the Summer of 1998, Commissioners Deason, Johnson and Clark arranged to visit
5 Aloha's service territory and view several customers' homes and the water provided by
6 Aloha into those homes. Unfortunately, do to a family emergency, Commissioner Deason
7 was not able to attend. However, Commissioners Clark and Johnson were escorted around
8 to several predetermined customers' homes to view the water provided to those customers.
9 In each and every case, we arranged to take a sample of water from outside the customers'
10 homes in order to show the Commission the quality of water that was actually being
11 provided at the point of delivery by Aloha. We still have those samples and will provide
12 them at hearing if the Commission so desires. In each and every case, they showed that the
13 water being provided to the customers' homes was clean and clear at the point of delivery.
14 Certainly, the Commission's visit revealed that as of last Summer, there were still some
15 customers receiving some copper sulfide in a few homes. We at Aloha still believe that the
16 total number of homes experiencing this copper sulfide problem is less, only a fraction of a
17 percent of total customers served. Secondly, we believe the optimization of our injection of
18 the corrosion inhibitor and our corrosion control program in general, should have
19 substantially helped in reducing the level of copper sulfide which customers are
20 experiencing. However, homes with home treatment units are much more likely to continue
21 to have both corrosion problems and odor problems because of the effects that these systems
22 have on the water delivered by Aloha after our point of delivery. Aloha cannot treat water
23 that is unaffected by these systems and therefore, it cannot be held responsible for what
24 occurs as a result of utilization of these systems. DEP and the environmental regulators have
25 certainly recognized this fact.

1 In all, I believe while the Commission's visit showed them that there were some problems
2 continuing at that time with copper corrosion in customers' homes, it also showed them that
3 in the one case where the copper pipe was completely replaced (the home of Mr. Vinto) that
4 the problem immediately and completely disappeared. In addition, I believe it showed the
5 Commission that the water as delivered by Aloha is completely clean and clear with no
6 copper sulfide, or any other discoloration.

7 Q. Do you have any further testimony to provide at this time?

8 A. No, other than to say that hopefully, we can resolve this case once and for all and bring it to
9 a close after over three and one-half years now of reviewing these matters. The level of
10 investigation of Aloha, the things required of Aloha, and Aloha's voluntary actions in
11 response (above those required of us by the environmental regulators), have been
12 unprecedented. The primary issue here concerns a building material used in the construction
13 of homes, i.e. copper pipe. While the focus throughout this proceeding has been water
14 quality, the better focus all along would have been copper plumbing systems. Representative
15 Fasano recently asked Pasco County to enact an ordinance to prohibit the use of copper in
16 plumbing and should be commended for that. It is time to bring this case to a close based
17 upon the scientific and engineering evidence, which we believe fully supports that Aloha is
18 in compliance with all environmental regulatory requirements and all customers complaint
19 requirements of the Commission's Rules and that the Utility is doing and has been doing
20 what it should be doing in order to ensure that the best quality of service is being provided
21 to its customers. If the Commission wishes Aloha to do more, then we need to have an order
22 laying out specifically what needs to be done and Aloha will move forward with those
23 improvements.
24
25

1 BY MR. DETERDING:

2 Q Mr. Watford, please provide a brief summary of
3 your prefiled direct testimony.

4 A Okay. First of all, I would like to thank you
5 for the opportunity to finally get to speak to you all
6 after several long days here.

7 My purpose today is to try to explain and update
8 for you what has been done, first of all, since the last
9 hearing, and maybe to even update the two Commissioners
10 that weren't present the last go-around of some of the
11 things that I know, Commissioner Clark, you have heard
12 probably before. And, hopefully, to explain and clarify
13 some things for you.

14 First of all, I would like to say that what we
15 have seen here in customer testimony, and I just want to
16 say it up front, I know our consultant has said it, is not
17 something that we believe we want to represent Aloha
18 Utilities. Our desire is to have happy customers,
19 satisfied customers with the service that we provide.
20 There is a lot of things to talk about, you know. And I
21 can tell that you are intensely listening, it is a very
22 complex issue.

23 I think there was lot of testimony that was shed
24 that hopefully cleared up some things, maybe it clouded a
25 few others, I'm not sure. But I believe that there has

1 been an awful lot of good information presented here. And
2 please don't misunderstand anything that I will say in any
3 way, shape, or form as an attempt to try to minimize what
4 the customers have said. Our goal is to try to resolve
5 this problem. It has been our goal for a very long time.
6 I wish it had been resolved a very long time ago.

7 But I think you will see, clearly, that we have
8 done what was possible for us to do in attempting to
9 resolve this problem as well as deal with the customer
10 dissatisfaction that has been made known to you all.

11 We believe that we have done what was within our
12 power to provide a high quality of service to our
13 customers. And we also do that at much lower rates than
14 the surrounding utilities. As to this issue of the black
15 water, discolored water, the black/gray water, whatever
16 you want to call it, which has become clearly the focus of
17 this, you know, there has always been this underlying
18 allegation that there is either something that we are
19 doing that we shouldn't be, or something that we are doing
20 that we are not.

21 You know, the fact is nobody had heard of this
22 before this case, short of maybe preliminary work at the
23 time, I guess, being done at a little laboratory in the
24 University of Colorado. I'm not exactly sure when she
25 first started into this thing. But, we didn't know what

1 it was. You have heard testimony here we didn't, in all
2 honesty, discover what it was. We saw it. We were
3 participating jointly with the Department of Environmental
4 Protection trying to figure out what it was, and it was
5 ID'd or identified, as previously testified, by the
6 Department of Environmental Protection's sampling effort
7 and I believe ultimately by the Department of Health
8 laboratory.

9 I think the evidence has clearly demonstrated
10 for years now that the only place that this corrosion
11 occurs is inside of homes with copper piping. We cannot
12 have copper sulfide with copper. We have no copper in our
13 source water. We have no copper in our system. The only
14 place it can come from is in customers' homes.

15 That is not an excuse. That is not a bailout on
16 the issue. Because obviously we have a tremendous amount
17 of money invested to this point in this proceeding. We
18 are still looking for a resolution and an answer to the
19 problem.

20 But the fact is and until we accept the fact
21 that that is where it occurs, we certainly can't get
22 around to trying to come up with a remedy for it. It is a
23 natural reaction that can occur between hydrogen sulfide,
24 which naturally occurs, you have heard plenty of testimony
25 on that, in Florida waters when it comes into contact with

1 copper.

2 The problem, as I said, is very complex. Mr.
3 Porter related a number of things that people have pointed
4 to both in the literature study groups that we have
5 participated in, focus groups. Again, I might point out,
6 focus groups that were called to deal with this problem on
7 a statewide level. And, honestly, much at the urging of
8 former Commissioner Johnson, as I recall, in the
9 appointing of this focus group that met in Orlando that
10 both experts talked about earlier.

11 We, at Aloha, the DEP, the PSC, the Department
12 of Community Affairs focus groups and study groups have
13 put a tremendous amount of time, effort and expense in
14 studying this problem. All of the water professionals
15 agree that the nature of the problem occurs in the
16 customers' pipings in their homes.

17 From a regulatory perspective, we and the DEP
18 provided testimony that Aloha has been, throughout the
19 course of this docket, in full compliance with all
20 regulations of any regulatory authority. And they have
21 submitted testimony in this case today to that effect.
22 And the fact is that we are still in compliance.

23 In fact, as it relates specifically to the lead
24 and copper rule, which is the most rule on point, I think,
25 that exists in this process, in the past six months we

1 have been granted reduced monitoring because of the good
2 performance of our lead and copper corrosion control
3 program. Because of that reduced monitoring, that is the
4 DEP's seal of approval in how you are progressing.

5 Again, and you are going to hear me say it a
6 couple of times, and I'm sure it is going to get
7 redundant, all of that being said, I'm not trying to say
8 that these customers don't deserve to have clean water
9 come from their taps, and that is why we are here. We
10 want these customers to be happy with the service that we
11 provide. But there is only so much we can do.

12 You just heard testimony from Mr. LeRoy as to
13 the level of his expertise into what could be done with
14 the problem. We offered to make that correction several
15 years ago now in a letter to the Commission offering to
16 build those facilities. You heard him say that his answer
17 to the problem would be to build what Mr. Porter put in
18 his report.

19 We have clearly shown that various home water
20 treatment devices, we believe, can have an adverse effect
21 on customers' water quality. As stated, again, our water
22 meets all the requirements of DEP and EPA. One thing that
23 I just have to say here for the record, and that is I
24 believe that the Public Service Commission's own rules
25 hold our level of responsibility to the point of

1 connection, or the point of delivery, as defined in the
2 Public Service Commission's rule. That is historically
3 and typically always determined to be the meter out at the
4 curb. To date in this proceeding there has been no
5 evidence by anyone produced to suggest that we ever have
6 failed to meet those requirements.

7 MR. McLEAN: Pardon me, Mr. Watford.

8 Commissioners, I think that goes more to
9 rebuttal, doesn't it? It would be a bit difficult for me
10 to see what was said today is a summary of direct
11 testimony which was filed long before that other testimony
12 was even received.

13 COMMISSIONER CLARK: I think he is responding to
14 what might have been said from the customers. But please
15 keep your summary to your prefiled direct testimony.

16 THE WITNESS: Okay. This is specifically the
17 reason that homes with home treatment systems are not even
18 permitted to be used for testing purposes under the lead
19 and copper rule. Because all the regulators have
20 determined that they are not an appropriate test site,
21 because they acknowledge up front that the utility has
22 absolutely no control over the water quality once it goes
23 into the home.

24 A little bit on Exhibit 1, the University of
25 Colorado study which has now been published in July of

1 1998 in the American Waterworks Association Journal. This
2 is a defining article on the point of copper sulfide. You
3 heard testimony, I realize that it is probably the only
4 on-point document published to date, but it is what we
5 have got to work with.

6 First, it shows several pertinent things.
7 First, that it is not strictly an Aloha problem. Aloha is
8 mentioned nowhere in this article. It talks about this
9 problem occurring throughout the United States. Not only
10 in Florida, but nationally.

11 It also addresses some potential solutions. And
12 I believe it rules out some others, as well.
13 Specifically, it shows that pH adjustment is not a viable
14 alternative for Aloha, and that was in support of prior --
15 in support of Mr. Porter's prefiled report on that
16 subject.

17 In Mr. Porter's engineering study that was
18 prepared at the direction of this Commission back in 1997,
19 he addressed that issue of pH control, but it has floated
20 around since those days among staff. And I believe that
21 the study done by Jacobs clearly shows that that is not
22 going to have an effect in this case.

23 As Exhibit 2 to my testimony you will find the
24 letter that I referred to earlier back from June of 1998
25 which was sent to the Commission offering to construct the

1 facilities, the same ones you heard witnesses sit here
2 today and say were the appropriate facilities to build
3 necessary to treat our water to the level that is outlined
4 not only in Mr. Porter's report but also in the study by
5 the University of Florida now published in the American
6 Waterworks Association Journal, a study which should
7 improve the formation of copper sulfide as well as clearly
8 the correction method of choice for any taste and odor
9 issues.

10 The problem that I see the Commission, I
11 believe, trying to struggle with is trying to look for the
12 guarantee that this is going to fix the problem. I wish I
13 had that answer for you. I don't. I have what is out
14 there. We have submitted it in my prefiled, and that is
15 the Jacobs study. There is nothing that I can say to you
16 other than the removal of the sulfides from the water has
17 to -- well, we know that it improves the overall water
18 quality in various areas. But it clearly has to have an
19 improving effect on the formation of copper sulfide.
20 Whether it is going to fix it in a week, or a month, or
21 six months, I don't believe anybody knows or can give you
22 the answer to that question. I believe probably the most
23 guidance is found in the Sarah Jacobs study.

24 As noted in my testimony, the upgrade is
25 something that will probably be required for us from a

1 regulatory perspective. However, we are still not sure
2 exactly when that is going to be. And I want to make it
3 very clear, we haven't rescinded the offer that was made
4 in that letter. We, today, stand ready, willing and able
5 to proceed with these upgrades upon an order by this
6 Commission that it would be prudent to do so.

7 On the issue of the odor complaints, there were
8 complaints of odor that were expressed by some customers
9 both at the previous hearing and in the customer survey
10 and yesterday. The only solution that we have available
11 to address those is the removal of hydrogen sulfide which
12 is, again, what we have proposed to do in the offer that
13 was made in 1998. However, it was a finding at that time
14 by the Commission that it would not be prudent for us to
15 do so.

16 COMMISSIONER JABER: Mr. Watford, on that note
17 if I could just interrupt you for a second. You made an
18 offer to construct facilities, you are referring to the
19 aeration system, the tower aeration system?

20 THE WITNESS: The packed tower aeration system,
21 yes, ma'am.

22 COMMISSIONER JABER: You are offering to
23 construct those facilities at your own expense?

24 THE WITNESS: No, ma'am, we were not.

25 COMMISSIONER JABER: So you are willing to

1 construct the facilities with an order by the Commission.
2 Why is it, that you are trying to recover the cost from
3 the ratepayers?

4 THE WITNESS: Why are we trying to recover --

5 COMMISSIONER JABER: Is it because you are
6 trying it recover the cost of the packed tower aeration
7 facility from the ratepayers?

8 THE WITNESS: Ultimately, yes, the ratepayers
9 will be paying for the treatment.

10 This solution would also address any complaints
11 that have been received about taste, although we didn't
12 hear too much about that. As it relates to the issue of
13 pressure, I believe that we have demonstrated to the
14 Commission and to the staff that we have provided adequate
15 pressure to our customers. And that pressure has always
16 been well above the standard any time it was tested and
17 checked.

18 COMMISSIONER JACOBS: Do you have any reason or
19 rationale why the complaints were so prevalent?

20 THE WITNESS: In relation to pressure?

21 COMMISSIONER JACOBS: Yes.

22 THE WITNESS: Well, we are, as of last week, in
23 an emergency status in Pasco County for watering
24 restrictions. It is now against the law to wash your car
25 in this county; it is against the law for you to water

1 other than a define period one day per week at your home.

2 The condition that that creates, although the
3 purpose of it is to try to conserve water, is it creates a
4 huge water demand, instantaneous demand that occurs in the
5 system all at the same time. I can tell you that
6 distribution systems that were built more than five or six
7 years ago were never designed for that kind of hydraulic
8 flow. We had our engineer several years ago do just a
9 rough analysis. And sometimes when we had watering peaks
10 we were seeing what would have been the equivalent of
11 fighting five fires at one time in the distribution
12 system.

13 A lot of it has to do with pipe sizing in
14 distribution systems. We have the ability to produce the
15 water. The problem that you experience around here, they
16 will see pressure drops during sprinkling times, there is
17 no way to avoid that. They are going to see that. The
18 question is does it fall below standards, and the answer
19 to that is no. But if you have 50 pounds one minute and
20 it drops to 35 pounds, you think you have got low
21 pressure. That is the first response.

22 The second response is an awful lot, the vast
23 majority of complaints that we ultimately see relating to
24 pressure have to do with something that is going on inside
25 the customers' home. You heard the one gentleman testify

1 yesterday about -- complaining about this pressure,
2 bringing somebody out to check it out. But he figured it
3 out later. It was the flow restricter in his shower head.
4 You know, we don't do shower heads, that is not something
5 that we do. We see that a lot.

6 Probably the most common is the one who doesn't
7 have the sprinkler system set up quite right and three
8 zones come on at once. You can't pull that much water
9 through a three-quarter inch meter to run three or four
10 zones in a sprinkler system at one time. And you have a
11 perception of low pressure. There is adequate pressure to
12 the meters, but you can only get 10 gallons a minute
13 approximately through a five-eighths by three-quarter
14 meter.

15 Am I saying that the pressure does not go down
16 during the watering period? Absolute not, because it
17 does, and it does in every system in this part of the
18 state.

19 COMMISSIONER JABER: Does the flushing of the
20 hydrants, could that also result in low water pressure?
21 Educate me on that. I really don't know anything about
22 flushing hydrants.

23 THE WITNESS: Well, the whole discussion of the
24 flushing of hydrants has kind of taken on a life of its
25 own, it appears. But the purpose of flushing of hydrants

1 as you have heard people talk about here, residence time
2 of the water in the system is the main issue that you are
3 dealing with. We have multiple points throughout our
4 distribution system that are checked on a daily, weekly,
5 bi-weekly, it depends on the location, it depends on the
6 water flow characteristics in that area. You heard talk
7 about dead ends. It depends on whether it is a deadend
8 cul-de-sac, or a system that happens to be looped. It
9 even depends on the seasons.

10 Just the simple act of them rearranging the
11 sprinkling days requires us to totally reconstruct the
12 frequency that we visit various places. We get a real
13 good flush right now through the system once a week.
14 Because every sprinkler in our entire area comes on at the
15 same time. Some places that they flush, they crack open
16 something, they check the water quality. If it is what it
17 needs to be, they close it and they go. Other times they
18 may have to run it a few minutes. A lot of that is
19 dealing with the dynamics of the hydraulics on the system.
20 If you a have a cul-de-sac that has ten people on it, if
21 nine of them are on vacation and there is one guy down at
22 the end, you are not going to get adequate water flow down
23 that street.

24 You heard even a person testify yesterday about
25 how they were, like, the second person to move into the

1 subdivision. And we used to flush a lot, but now that
2 other people have moved in and the water flow is up, they
3 don't see us near as often. There is not a need to be
4 there because the water use is there.

5 COMMISSIONER JABER: So does it cause a lowering
6 of the water pressure, does the flushing of the hydrant
7 cause pressure to be low in the customers' homes?

8 THE WITNESS: No, ma'am, I didn't believe it
9 does. As I said, the point is not to try to get any large
10 velocity or large quantity of water. The purpose of it is
11 to do water quality checks throughout the system. The
12 guys that do the flushing will not open up something to
13 the extent that it will effect water pressure.

14 COMMISSIONER JABER: What circumstances would
15 exist that would necessitate your company flushing the
16 hydrant at 1:00 o'clock in the morning?

17 THE WITNESS: At 1:00 o'clock in the morning,
18 more than likely, if I had to guess, and that is all that
19 I'm doing right now, would have been some sort of a main
20 break or something like that that had to be repaired.

21 COMMISSIONER JABER: You are the president of
22 the company?

23 THE WITNESS: I'm sorry?

24 COMMISSIONER JABER: You are the president of
25 the company?

1 THE WITNESS: Yes, ma'am.

2 COMMISSIONER JABER: If there was a major main
3 break that required flushing hydrants at 1:00 o'clock in
4 the morning, shouldn't you know the answer to this
5 question?

6 THE WITNESS: I thought I did answer the
7 question. I'm sorry.

8 COMMISSIONER JABER: You said you were
9 guessing.

10 THE WITNESS: I'm sorry, not a specific day. I
11 don't know which day you are referring to.

12 COMMISSIONER JABER: Maybe I misunderstood.
13 Your response to me was, well, I would have to speculate.
14 Didn't you say that?

15 THE WITNESS: I thought you were talking about a
16 specific day. You are speaking just in generalities?

17 COMMISSIONER JABER: No, let me start over.
18 There was a customer yesterday that testified he witnessed
19 someone from your company flushing the hydrant at 1:00
20 o'clock in the morning. What circumstance would
21 necessitate your company flushing a hydrant at 1:00
22 o'clock in the morning?

23 THE WITNESS: Okay. Generally only two
24 situations that I can think of right now. One would be if
25 there were some sort of a line break, a repair had to be

1 done. The line would have been repaired. The normal
2 procedure there would be to open up the hydrant or blow
3 off on the end of the street when he brought the water
4 back on it make sure it was flushed. The other would be
5 approximately twice a year we do an entire system flush
6 that we do between midnight and up to about 4:00 a.m. We
7 do that specifically at those times so as not to affect
8 customers.

9 COMMISSIONER JABER: Thank you.

10 THE WITNESS: Okay.

11 COMMISSIONER CLARK: Anything else?

12 THE WITNESS: Yes. I didn't know if there was
13 anything else from you.

14 COMMISSIONER CLARK: Go ahead.

15 THE WITNESS: On the issue of the handling of
16 complaints, as we provided to the Commission as a
17 late-filed exhibit and has been attached, I believe it is
18 my Exhibit 3, was the information that we put together
19 demonstrating that the utility is and has always been in
20 compliance with the requirements on recordkeeping in
21 responses to customer complaints.

22 You have heard testimony even here that they say
23 it is a lie. They see us all the time. You even heard
24 the gentleman who talked about the survey saying, yes,
25 they were always responsive, they were always courteous.

1 Again, are they satisfied with the solution? No, because
2 they haven't been given a solution yet. But I think that,
3 again, as I stated at the outset, we have done what is
4 within our power to try to minimize, distribute
5 information to the customers. But until there is actually
6 a solution brought to the table, I don't think they are
7 going to tell you they are satisfied no matter how many
8 times we come out, no matter how many times we respond.
9 You have heard different customers talked about here. If
10 I look in our data base, I see in excess of 30 trips to
11 Mr. Vinto before his house was repiped.

12 COMMISSIONER JACOBS: Mr. Watford.

13 THE WITNESS: Yes.

14 COMMISSIONER JACOBS: You would agree there is a
15 fairly widespread and deeply held sentiment amongst a
16 large body of your customers that they are dissatisfied?

17 THE WITNESS: Yes. And my response to that
18 would be they have yet to be given the answer to the
19 problem. I believe your staff themselves -- as a matter
20 of fact, in their last recommendation summarized that
21 issue very well. They described it, I believe, as a black
22 cloud that hangs over this utility. And until there is a
23 resolution given to the customers, they are not going to
24 be satisfied. I'm not telling you I would be satisfied if
25 that came from my tap, either. Please don't misunderstand

1 me.

2 COMMISSIONER JACOBS: The one aspect -- and I
3 agree. The one aspect that concerns me is there has been
4 this rush for solutions. And I'm wondering, have you
5 undertaken any form of essential discussion, whether it be
6 in the form of a town meeting or other than -- we heard
7 examples where your personnel brought out articles. But
8 it would occur to one hearing the testimony we heard that
9 when faced with this problem -- let's set aside for the
10 moment any question of your responsiveness, that you were
11 responsive. When faced with this problem, there was a
12 search for a solution. And many of these customers didn't
13 understand what an effective solution was.

14 And what I'm hearing is that many of them
15 purchased at a substantial expense proposed solutions that
16 don't work. In fact, harm them. Do you think that there
17 could have been anything early on when this problem became
18 very evident that could have been done to assist these
19 customers in searching for effective solutions?

20 THE WITNESS: Well, Commissioner Jacobs, yes. I
21 think that we did a lot of that. I personally sent
22 letters to homeowner association presidents back when this
23 issue first came up. We talked as much as people were
24 willing to talk about the problem. But, honestly, the
25 problem when it first arose, nobody knew what it was. We

1 had not seen it, we had not -- we didn't know what it was.
2 There was all kind of speculation. There was an awful lot
3 of misinformation. And we dealt with that as best as we
4 could.

5 We did a newsletter distribution, I think you
6 have seen probably -- well, I know you had some of it read
7 to you the other day. We did a newsletter distribution to
8 the customers explaining, the best that we could, what was
9 going on. And I will be the first to admit, that evolved
10 as we learned what was going on.

11 This package of information that we distribute
12 to the customers that see the problem, we put it together
13 the best we could, we had your staff review it, we had the
14 Department of Environmental Protection review it for
15 accuracy, because we, you know, we wanted all the input we
16 could have. We went to the study groups.

17 I participated in the same focus group, study
18 group, whatever you want to call it, put together by the
19 University of Florida and the DCA that Mr. Porter and Mr.
20 Mr. LeRoy attended in Orlando. I mean, yes, as we -- as
21 the information became available to us, we disseminated
22 that every way that we knew.

23 COMMISSIONER JACOBS: Thank you.

24 THE WITNESS: As it relates to the handling,
25 specifically of customer complaints, we believe and

1 believed at the time that we were in full compliance with
2 those requirements. We have further reviewed all of those
3 policies and our procedures and, again, state to you that
4 we believe, pursuant to your rules, that we are in full
5 compliance.

6 Since the last hearing, we have upgraded our
7 computer system at our office. I'm not going to tell you
8 that it was specifically for that purpose. A lot of it
9 had to do with the Y2K problem. But one of the benefits
10 of that was also a much detailed tracking system, and a
11 much more -- and a much better system as far as being able
12 to establish and track trends that occur out in our
13 distribution system as far as distribution of complaints.

14 This allows us to much more quickly determine
15 that something is going on in a specific area and try to
16 get to the source of the problem before it continues for a
17 longer period of time. I do, you know, again, as it
18 relates to this particular issue, most utilities that we
19 have talked to, when they get a call on the phone that
20 says, "I have discolored water in my house," they say,
21 "Well, do you have it out at your meter?" Then they say,
22 "No." And they say, "Well, okay, it is your problem, it's
23 not ours." And that is the end of the conversation.

24 You have heard here testimony that we are out
25 there over, and over, and over again. If a customer

1 contacts us and says they have a problem, it doesn't
2 matter if we have been there 25 times before for the same
3 problem, we will go back there until there is ultimately a
4 resolution to the issue. And I think if you heard
5 anything as it relates to that through the customer
6 testimony, that is what you heard.

7 One other issue that had been raised previously
8 was that possibly the customers weren't getting a
9 consistent message when they talked to someone in our
10 office. The fact that you have more than one person
11 answering the telephone sometimes leads to that. And in
12 all honesty, I have run into that a time or two talking to
13 the Department of Consumers Affairs at the Public Service
14 Commission.

15 Because of that concern we have designated a
16 single person who is responsible, so that all water
17 quality complaint issues are funnelled through that one
18 person. So that if a person calls up and says, "Do you
19 remember when I called yesterday," they wouldn't be told,
20 "No, I don't remember talking to you yesterday."

21 And, also, of course that, you know, would keep
22 the customer from having to reexplain something that they
23 were in the process of working out with one of our service
24 representatives. We have also put forth an extra effort
25 to emphasize to our staff that their responsibility is

1 always in treating the customers with courtesy.

2 I hope that you can understand that this has
3 been a very difficult situation for us. There are
4 frustrated customers. You have clearly seen that. A lot
5 of what you have seen here as far as that frustration
6 being vented is vented on our staff as well.

7 We have continuously reminded our staff that the
8 customers are frustrated, that they are entitled to an
9 answer. We believe we have given them the appropriate
10 answer, the same answer that we have given this
11 Commission. But until they get that in a unified message,
12 not only from Aloha but from this Commission, and also
13 probably from Representative Fasano, I don't see that the
14 situation is going to change as it relates to that.

15 As I mentioned earlier, we prepared this
16 information packet, which was like a two-page synopsis of
17 the problem, but also included some manufacturer's
18 literature and so forth, that dealt with formation of
19 hydrogen sulfide in water heaters and that kind of thing.
20 Again, in our effort to try to educate the customers as to
21 how this problem occurs and how it manifests itself.

22 Again, since this black water problem
23 technically occurs beyond the point of delivery, I don't
24 believe by rule that is something we are required to do,
25 but it is something that we do, because we want our

1 customer satisfaction to be at the level that it used to
2 be. We have gone the extra mile in dealing with this
3 problem. I must state for the record, once again, that we
4 are in full compliance with all the water quality regs.
5 During the early part of this docket there was some
6 suggestion that possibly we were out of compliance with
7 the lead and copper rule because of the exceedence of an
8 action level.

9 The fact is, and I believe this has already been
10 gone over, but the fact is an action level is something
11 that triggers the requirement of an implementation of a
12 corrosion control program. It is not an MCL, which is a
13 violation. When we completed our first round of testing,
14 we were above the action level, as were most systems in
15 this part of Florida, at least that I am familiar with, or
16 at least most of the systems in Florida that use ground
17 water as a water source that required us to implement
18 corrosion control.

19 You have already heard the testimony that that
20 was even expedited once the black water issue manifested
21 itself. However, we are now optimized by the DEP. We
22 have been granted reduced monitoring. And I believe this
23 has fully been verified at this point by your staff.

24 COMMISSIONER JABER: Mr. Watford, may I ask you
25 a clarifying question on the lead and copper rule and how

1 that whole process works. The action level, being above a
2 certain level just triggers DEP informing you that you
3 need a corrosion control program?

4 THE WITNESS: Yes. I mean, we know that,
5 obviously, when we get the data in. But, yes, DEP would
6 also inform us of that.

7 COMMISSIONER JABER: So your point is, it is not
8 that you are not in compliance with the lead and copper
9 rule, you reached a certain action level and DEP informed
10 you you needed to implement a corrosion control program.
11 Do they approve your corrosion control program?

12 THE WITNESS: Yes, ma'am, they do. They approve
13 any method of treatment that goes on your system.

14 COMMISSIONER JABER: You submit a plan to them
15 or a program to them, and they send you back something
16 that says this is all right with us?

17 THE WITNESS: Yes, ma'am. Actually, I wish it
18 were that simple, but that is the ultimate end of the
19 process. Yes, it usually goes back and forth a few times.

20 COMMISSIONER JABER: Are companies out of
21 compliance with the lead and cooper rule if they don't
22 submit corrosion control programs?

23 THE WITNESS: Yes, they would be.

24 COMMISSIONER JABER: Is that the only thing that
25 would result in being out of compliance with the lead and

1 copper rule?

2 THE WITNESS: No. And probably what would help
3 to understand this is, first, to realize the lead and
4 copper rule is relatively new. And you have an
5 implementation period with any new rule that comes into
6 play. It has been there for awhile now. Once the rule is
7 in place and you have gone through -- and, honestly, Mr.
8 Porter would be the one to more accurately address the
9 exact specifics of how it is constructed. But once you
10 have gone through the initial testing, and realizing at
11 this point going in any utility who has never been
12 subjected to the lead and copper rule has no idea where
13 they are going to fall on that continuum.

14 The whole point of the action level is the
15 initiation into the program. If you test and your copper
16 levels are below the action level, then there is nothing
17 further required other than some testing in the future to
18 assure that you stay below that. If you are above it, it
19 then falls back to your engineer or your engineering staff
20 to propose and design a plan.

21 Mr. Porter talked a little bit about how that
22 was done in Aloha's case. And ultimately that gets
23 submitted to the Department of Environmental Protection
24 for approval. They then watch the effectiveness of that
25 over a period of time.

1 Once you have demonstrated to them that the
2 effectiveness of that is what it ought to be, you can
3 apply for reduced monitoring, which I take kind of as
4 their seal of approval to your system, finally. And they
5 deem you as optimized and they send you a letter that says
6 your system is optimized. And you are granted reduced
7 monitoring.

8 COMMISSIONER JABER: Thank you.

9 COMMISSIONER CLARK: Are you close to being
10 done?

11 THE WITNESS: About ten minutes, I think.

12 COMMISSIONER CLARK: Let me just indicate, you
13 are supposed to be doing a summary of your prefiled
14 testimony, and it has gone on for awhile now. I
15 appreciate the fact that we have asked questions.

16 Do you need to change paper?

17 THE REPORTER: Yes, ma'am.

18 (Off the record briefly.)

19 COMMISSIONER CLARK: Go ahead, Mr. Watford.

20 THE WITNESS: Okay. As you know, this
21 Commission directed Mr. Porter to prepare a study. You
22 heard it mentioned, you have probably seen it. We believe
23 this is the best method for addressing all of the issues
24 that have been before this Commission as it relates to
25 water quality. There was some discussion, clearly, as to

1 how effective it is going to be on the customers that
2 presently experience the black water, and already have the
3 corrosion going on in their copper pipes.

4 However, I just can't help but tell you that I
5 can't see how, if we removed the sulfur products in its
6 entirety as opposed to converting it from sulfur to
7 sulfate, or sulfide to sulfate, that it is not going to
8 improve the problem. We know clearly it will improve the
9 taste and odor issues.

10 During the survey, I have to point out in the
11 analysis of the survey that was prepared by your staff we
12 had a lot of disagreement with the way that was presented.
13 That is a late-filed exhibit or, I'm sorry, that is an
14 exhibit to my direct testimony, as well. Clearly your
15 survey was presented from the perspective that if you had
16 no problem, you should return the survey. It said that in
17 bold language on front.

18 So any representation as it relates to the
19 percentage of those surveyed as to how to quantify the
20 issues, I feel is grossly unfair to this company. And it
21 should be always represented as a percentage of those
22 surveyed, not as a percentage of those who responded when
23 the only ones that were told to respond were the ones that
24 had a complaint. And I will leave that at that.

25 I have mentioned in my prefiled, and I'm sure

1 there will be some discussion about it, our complaint
2 levels have come down dramatically from the time of the
3 hearing a few years ago. Overall, complaints are down to
4 about the level that they were prior to the hearing in
5 1995. And before you ask, I can't tell you exactly why
6 that is. All I can tell you is that is what, those are
7 the calls that we are getting. But the level of
8 complaints has come down drastically. Whether that is
9 because customers are tired of it, I'm sure they are. I
10 can't speculate on that.

11 In the summer of '98 we toured the service area
12 with Commissioner Clark and then Commissioner Johnson. We
13 went to several well sites and also to several customers'
14 homes. I know two of you were not present for that, but
15 Commissioner Clark was. And I'm sure that Commissioner
16 Clark recalls that at each and every house the water going
17 into each and every home was perfectly clear and had no
18 odor or any objectionable qualities whatsoever.

19 At the exact same time we saw that, we saw black
20 copper sulfides coming from faucets inside of homes. I
21 remember the one clearly in Riviera where it ran in the
22 large tubs just as black as anything that you see here on
23 the floor. That was at exactly the same time that we
24 checked the water going into the home, and it was
25 perfectly clear at their point of delivery. I still have

1 the samples that we took sitting in my office today from
2 that site visit, and that water is still, today, perfectly
3 clear.

4 We also went and visited Mr. Vinto's home. This
5 is the gentleman whose copper pipes had been replaced with
6 CPVC that you heard earlier testimony about. At the
7 time -- I believe at the time we visited there it has been
8 approximately 12 or 13 months since that has been repiped.
9 Mr. Vinto told both Commissioner Johnson and myself that
10 since that day he had never seen black water.

11 Now, he did tell both Commissioners he still had
12 an objection to the odor in the water. And as I recall,
13 took them in each bathroom and asked them to smell, and so
14 forth. But the point was the repiping of that house took
15 care of the copper sulfide in his water. I have spoken
16 with Mr. Vinto since then. I have received two complaints
17 from Mr. Vinto since then. Both of those were to deal
18 with odor in his water, never to deal with discoloration
19 in the water.

20 Finally, in conclusion, you know, we have been
21 talking about this now for about four and a half years.
22 The level of investigation, what has been required of this
23 company as well as things that we have done voluntarily, I
24 believe are unprecedented. The primary issue in this case
25 is the black water. We know that it is caused by a

1 building material used in homes, copper pipes.

2 Clearly there is frustration on the basis of the
3 customers. I understand that. I don't minimize it in any
4 way, shape or form. We are very frustrated with it as
5 well. But there is really nothing new that has been added
6 here. The answer to the problem, if you want the 100
7 percent sure solution today to make someone's black water
8 go away is to repipe that house in CPVC. That we know.

9 If you want to address the bigger issues as it
10 relates to taste and odor and long-term correction or
11 longer term correction of the black water, then I believe
12 the way to go is to order us to construct these facilities
13 that have been proposed by Mr. Porter.

14 It is vitally important to this issue that we
15 get a unified answer from everyone involved to present to
16 the customers. Continuing this thing on, I'm convinced,
17 there is an awful lot of folks that have been involved in
18 this debate for a long time. Some of those individuals
19 were very pleasant in the beginning. It is now five years
20 later. They are not nearly as pleasant in dealing with
21 the issues. That is not a criticism, because I'm worn out
22 with it as well.

23 And we need to get an answer to the customers.
24 And we need to have a unified answer so that they can move
25 on and make whatever informed decisions they need to make

1 in dealing with this.

2 Thank you.

3 COMMISSIONER CLARK: We are going to adjourn the
4 proceeding now. We will reconvene at 9:30 on April 25th
5 in Tallahassee.

6 We will make, see if we can make arrangements to
7 have some facility down here, some way for you to hear the
8 testimony live. I don't know if we can do it by Internet
9 or what. We will make that effort.

10 MR. JAEGER: Do you have a room yet?

11 COMMISSIONER CLARK: No, I don't.

12 MR. JAEGER: Why don't you announce it for
13 either 148 or 152, and then we can put up a sign. I
14 mean, if people come to Tallahassee, that way we can --

15 COMMISSIONER CLARK: I think we can take care of
16 it then. It is either going to be in the big hearing room
17 or the little one.

18 Anything else, Mr. Jaeger?

19 MR. JAEGER: I believe that does it,
20 Commissioner Clark.

21 COMMISSIONER CLARK: Mr. Deterding or Mr.
22 McLean?

23 MR. McLEAN: One very small item. I said that I
24 would not question Mr. Watford. That remains true, but I
25 probably won't be in this chair on April 25th. And my

1 successor may want to. I don't think that will cause the
2 Company any prejudice, but I don't want to waive the right
3 to examine Mr. Watford for someone who may take the case
4 after me.

5 COMMISSIONER CLARK: Okay. Thank you. This
6 hearing is adjourned.

7 (The hearing adjourned at 4:30 p.m.)

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1 STATE OF FLORIDA)

2 : CERTIFICATE OF REPORTER

3 COUNTY OF LEON)

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5 I, JANE FAUROT, RPR, Chief, FPSC Bureau of Reporting
6 FPSC Commission Reporter, do hereby certify that the
7 Hearing in Docket No. 960545-WS was heard by the Florida
8 Public Service Commission at the time and place herein
9 stated.

7

8 It is further certified that I stenographically
9 reported the said proceedings; that the same has been
10 transcribed under my direct supervision; and that this
11 transcript, consisting of 137 pages, Volume 5, constitutes
12 a true transcription of my notes of said proceedings and
13 the insertion of the prescribed prefiled testimony of the
14 witness(s).

11

12 I FURTHER CERTIFY that I am not a relative, employee,
13 attorney or counsel of any of the parties, nor am I a
14 relative or employee of any of the parties' attorney or
15 counsel connected with the action, nor am I financially
16 interested in the action.

14

15 DATED THIS 19TH DAY OF APRIL, 2000.

15

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JANE FAUROT, RPR
FPSC Division of Records & Reporting
Chief, Bureau of Reporting
(850) 413-6732

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